编译者说明

由于电子工业和电影、电视事业的飞速发展，近年来我国在光学镜头设计及其加工方面取得了很大进展。成系列的各类镜头已经设计和试制出来，有些并已进入成批生产阶段。但在品种、数量和质量方面，跟世界先进水平相比，差距还是比较大。

近年来，我们收集了美、英、德、日等国从 1811 年到现在的光学镜头资料及部分国内镜头资料共 3000 多种，现挑选其中的一部分经补充整理之后，将其出版，以供我国从事光学镜头设计的人员参考。

我们准备分成“大相对孔径物镜”（第一、二册，已出），“广角物镜”（第三册，已出），“变焦距物镜”（第四册，已出），“中等视场中等孔径物镜”（第五册，已出），“日本七十年代初的部分大相对孔径物镜及部分广角物镜专集”（第六册），“1978～1980 年国外部分物镜专集”（第七册），“目镜和显微物镜”（第八册），“非球面系统”（第九册），“特种镜头及其他”（第十册）等九类。每册收集的镜头数约为 100～200 个。

原资料中，大部分没有列出象差曲线图，我们均重新计算给予补上。由于原资料的光栏位置大多没有给出，我们计算时只能根据我们主观给定的光栏位置进行计算，因此相应的象差曲线图仅供参考。

本册的内容为日本七十年代初的部分大相对孔径物镜及部分广角物镜专集。

由于我们水平有限，时间仓促，力量不足，所以只能一部分一部分地整理出版，而且在整理过程中，一定存在不少缺点和错误，分类也不可能完全合理，望读者批评指正。

参加本册编译工作的有林茂智、杨甦田、杨希光等三位同志。

编　译　者

VISIT…

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符 号 说 明

1. 凡数据后有符号“*”，表示光栏位置或其值中间有光栏。

凡数据后有符号“**”，表示原资料中未给此值，此系编者在计算时给定的值。

2. 凡没有注明数值单位的，均以毫米为单位；若注明以英寸为单位，则在该镜头资料中均以英寸为单位。

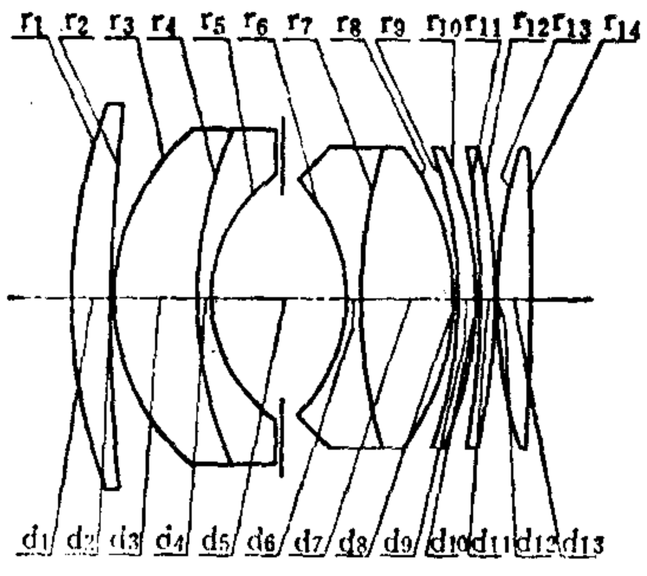
3. 常用符号：

ΣS_1	球差系数和；
ΣS_2	彗差系数和；
ΣS_3	象散系数和；
ΣS_4	场曲系数和；
ΣS_5	畸变系数和；
LA'	球差；
$\Delta H'$	绝对畸变；
x'_t	细光束子午场曲；
x'_s	细光束弧矢场曲；
$x'_t - x'_s$	象散；
K'_{T1}	全口径的子午彗差；
$K'_{T0.7}$	0.707 口径的子午彗差；
QP	相对畸变；
HI	理想象高；
E. F. L	焦距；
B. F. L	后截距；
FNo.	相对孔径倒数；
F. A.	视场角；
L'_p	入瞳距离或光栏距 L'_p 下标所示面的距离；
η	物高；
ω	镜头视场。

编号：06-00-001

大孔径摄影物镜

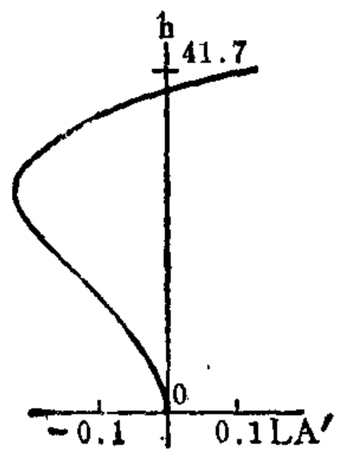
E. F. L＝99.93　　B. F. L＝64.98　　FNo. ＝1.2　　F. A. ＝±20°

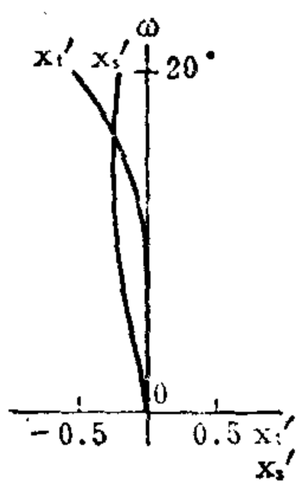


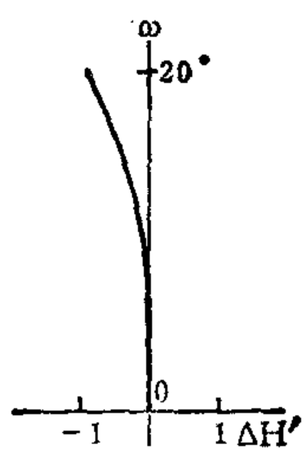
序号	r	d	n	v	序号	r	d	n	v
1	125.0	9.0	1.7860	44.3	8	－55.8	0.4		
2	675.0	0.4			9	－98.0	4.0	1.7130	54.0
3	49.8	18.4	1.8340	37.2	10	－80.0	0.4		
4	98.0	3.0	1.7847	26.1	11	－232.5	4.0	1.7170	48.0
5	33.2	30.0*			12	－144.6	0.4		
6	－37.5	3.2	1.6989	30.1	13	120.0	7.0	1.7200	54.0
7	120.0	20.8	1.7570	47.7	14	－546.2			

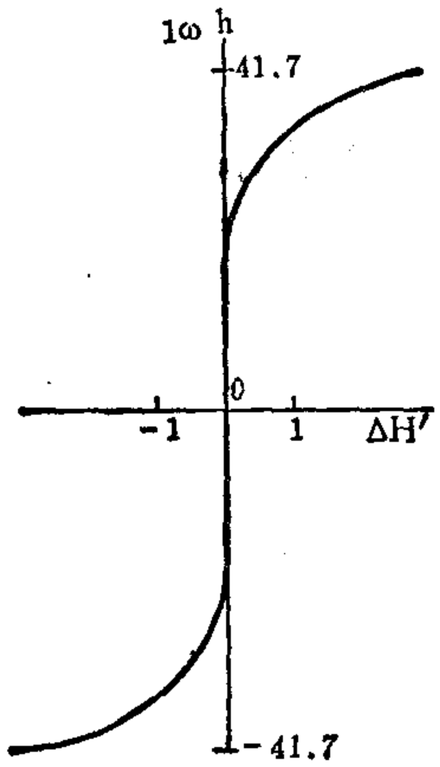
30.0* = 15.0 + 15.0

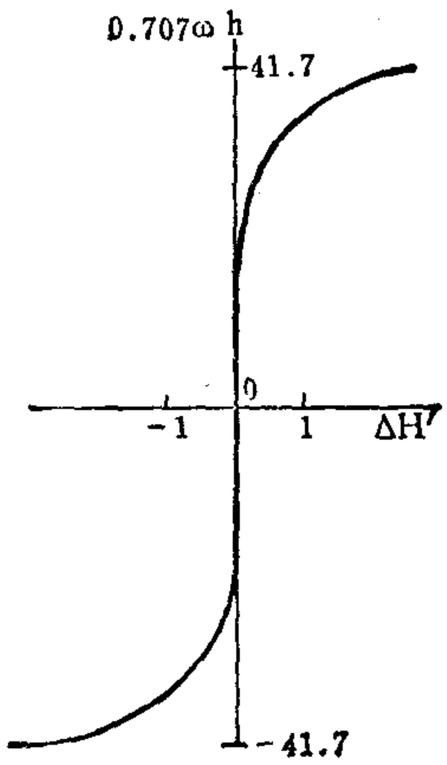
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (1ω)
	－0.3553	0.1403	0.1058	－0.3699	－0.6469	36.37	－2.5%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.118	－0.926	－0.527	－0.198	－0.329	－0.1855	0.0766
70	－0.221	－0.309	－0.120	－0.246	0.126	－0.4726	0.0761







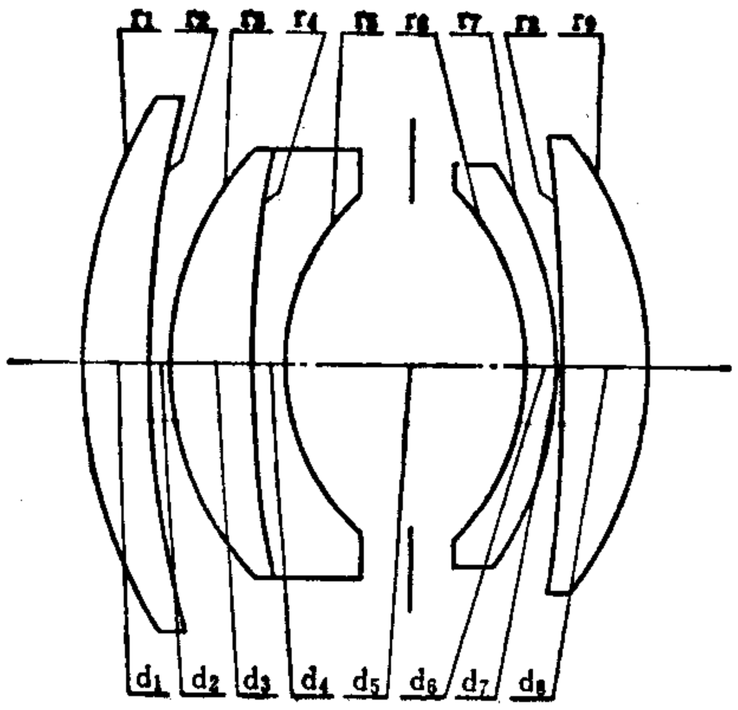




编号：06-00-002

大孔径广角摄影物镜

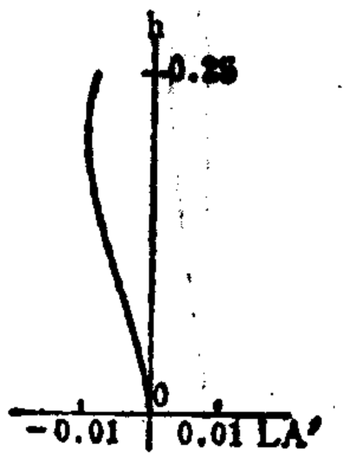
E.F.L=0.98　　B.F.L=0.656　　FNo. = 2　　F.A. = ±

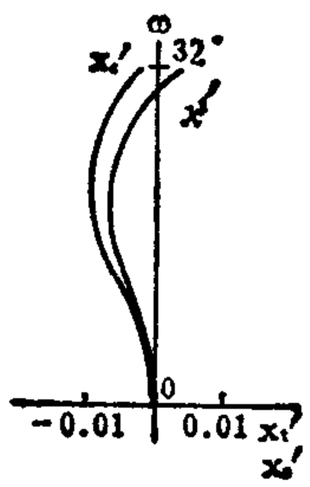


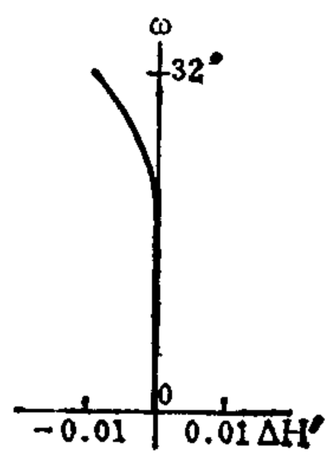
序号	r	d	n	v	序号	r	d	n	v
1	0.4722	0.0611	1.67790	55.5	6	−0.2336	0.0278	1.78472	25.7
2	1.0556	0.0194			7	−0.3306	0.0028		
3	0.2886	0.0750	1.74443	49.4	8	−1.5833	0.0778	1.73350	51.0
4	1.0000	0.0306	1.78472	25.7	9	−0.3539			
5	0.2089	0.2194*							

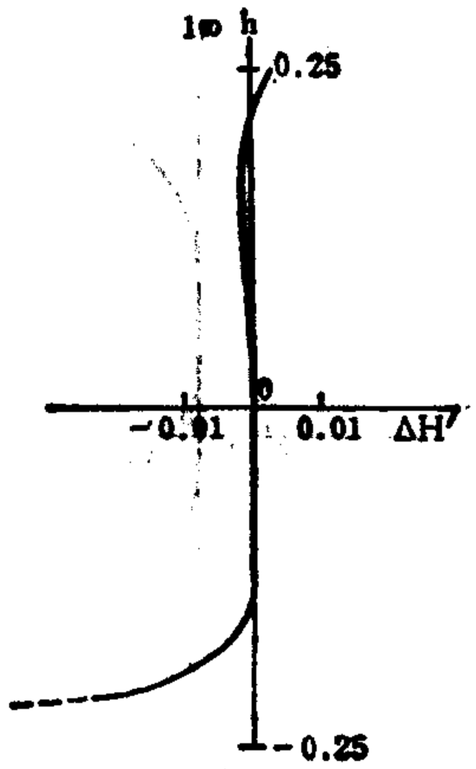
0.2194* = 0.1134 + 0.1060

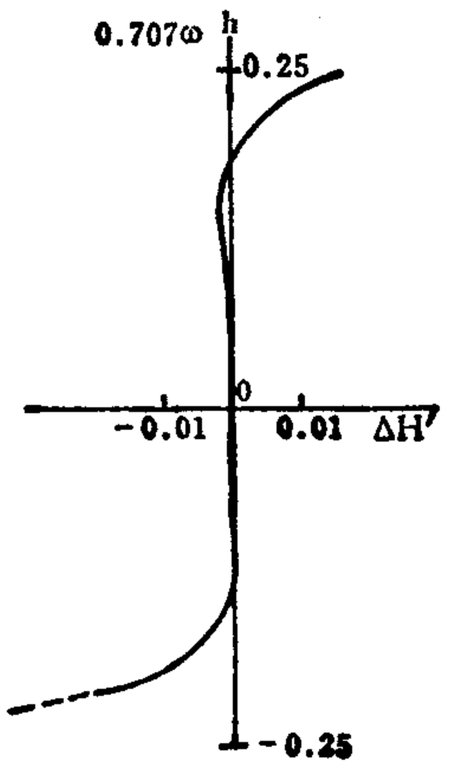
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00405	0.00022	0.00024	−0.00414	0.00256	0.61	−1.5%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.0087	−0.00922	0.0031	−0.0027	0.0058	−0.10431	−0.00236
70	−0.0096	−0.00012	−0.0066	−0.0098	0.0032	−0.05465	−0.00204







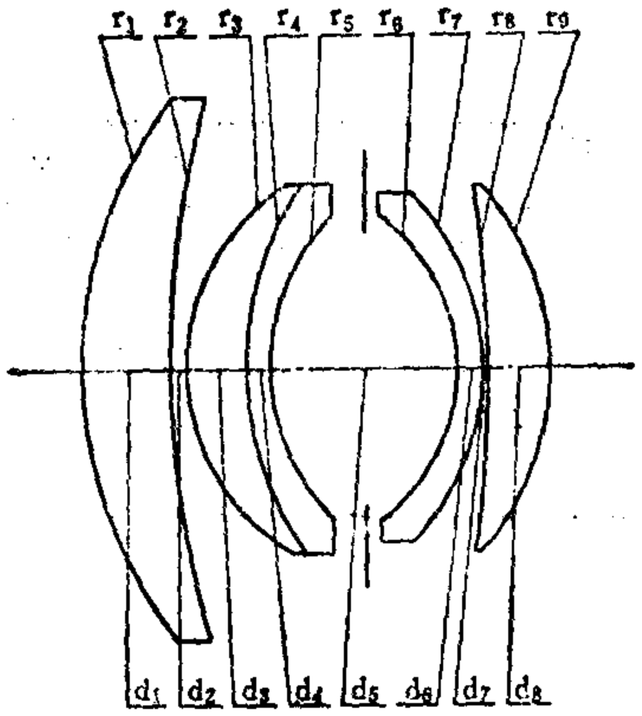




编号：06-00-003

大孔径广角摄影物镜

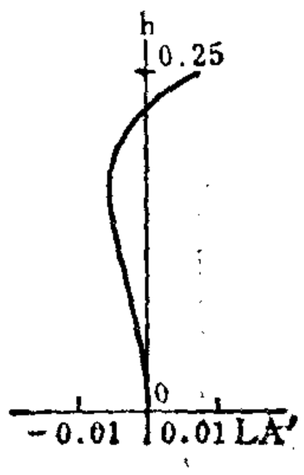
E. F. L = 1　　B. F. L = 0.6241　　FNo. = 2　　F. A. = ±32°

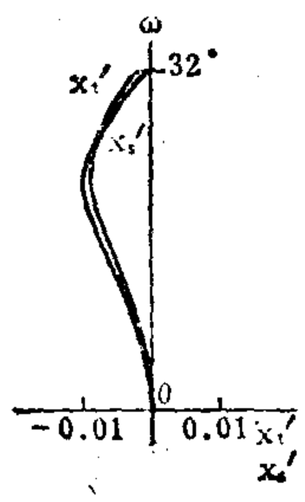


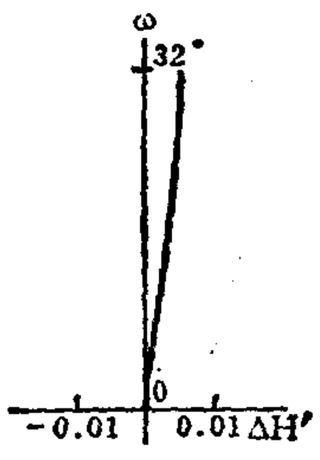
序号	r	d	n	v	序号	r	d	n	v
1	0.55555	0.1083	1.69350	53.4	6	− 0.22677	0.0277	1.76182	26.5
2	1.22222	0.0194			7	− 0.31155	0.0027		
3	0.26666	0.0750	1.72000	50.3	8	− 1.58408	0.0777	1.67790	55.5
4	0.40277	0.0305	1.74077	27.7	9	− 0.34738			
5	0.19644	0.2268*							

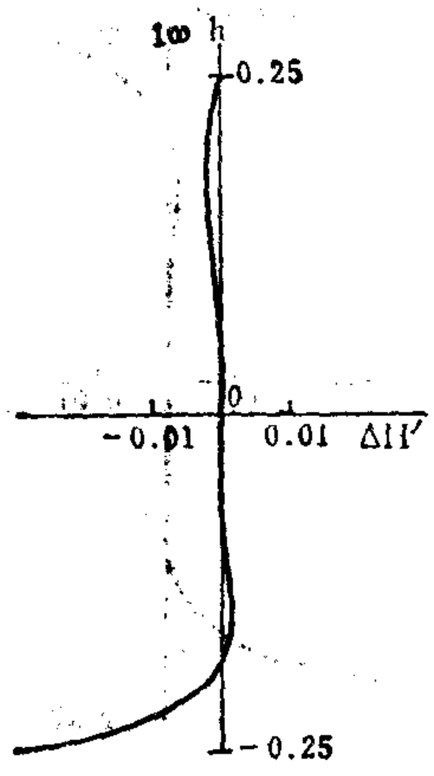
0.2268* = 0.1134 + 0.1134

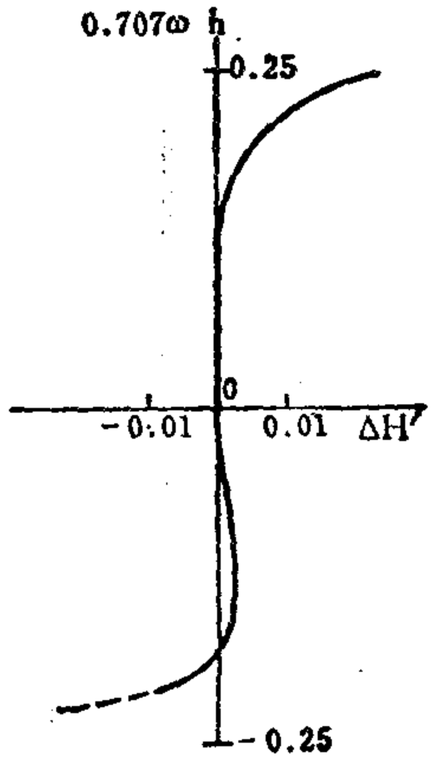
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.00297	0.00139	− 0.00039	− 0.00372	0.00722	0.62	0.76%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.0077	0.0048	− 0.0018	− 0.0010	− 0.0008	− 0.0190	− 0.0005
70	− 0.0054	0.0042	− 0.0090	0.0095	0.0005	− 0.0183	0.0015







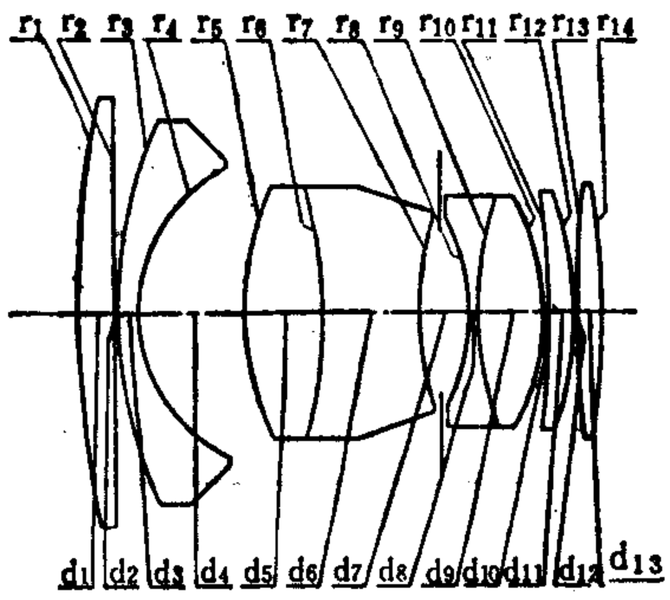




编号：06-00-004

长后截距大孔径摄影物镜

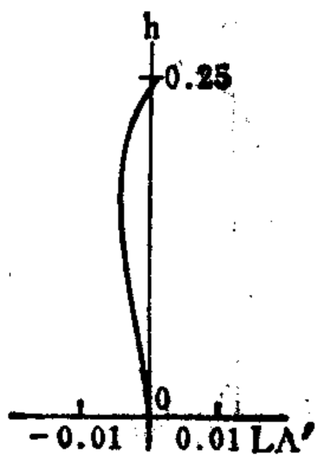
E. F. L = 1　　B. F. L = 1.1342　　FNo. = 2　　F. A. = ±31°

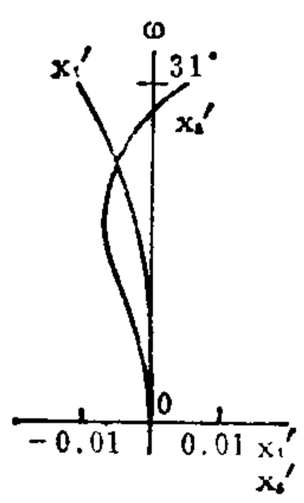


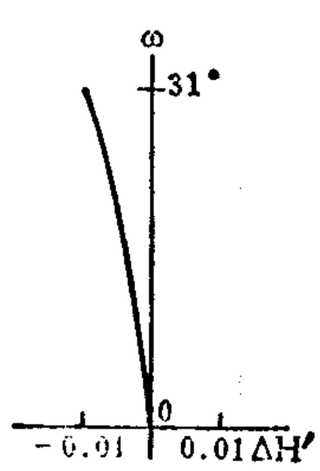
序号	r	d	n	v	序号	r	d	n	v
1	3.2117	0.10833	1.71300	53.9	8	−0.5992	0.02778	1.78470	26.1
2	∞	0.00278			9	1.0775	0.19444	1.74443	49.4
3	1.3889	0.06111	1.51680	64.0	10	−0.7172	0.00278		
4	0.4778	0.31111			11	−3.0556	0.08333	1.76684	46.2
5	0.8945	0.22778	1.66755	41.9	12	−1.0691	0.00278		
6	−1.5278	0.29167	1.51454	54.6	13	3.6111	0.06944	1.74400	44.9
7	0.9444	0.14722*			14	−2.1985			

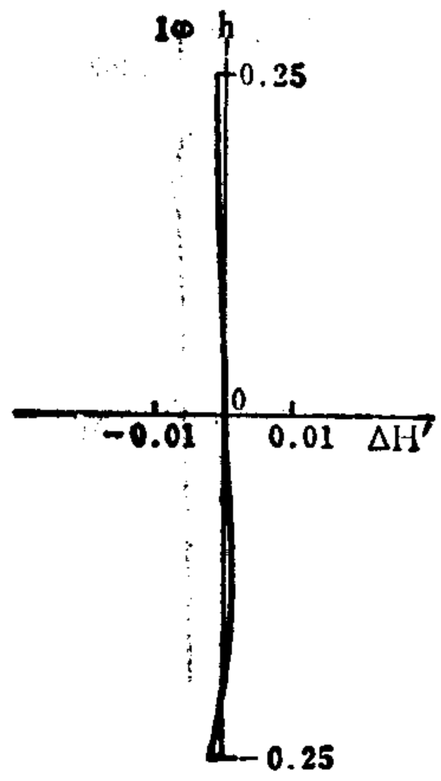
0.14722* = 0.07200 + 0.07522

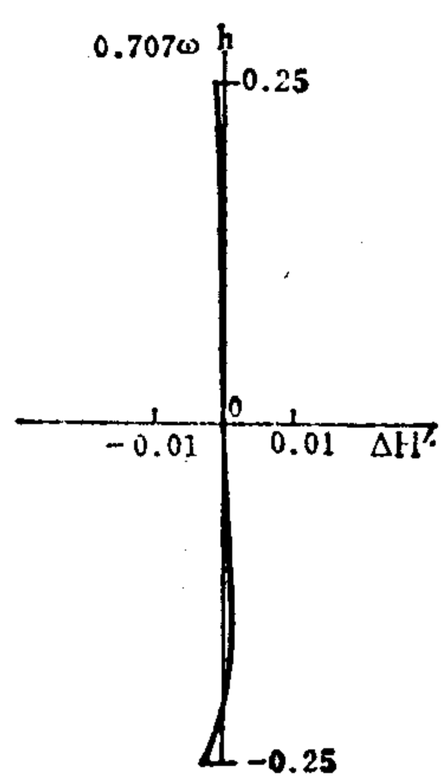
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00189	0.00102	0.00032	−0.00356	−0.00709	0.60	−1.7%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	$K\acute{r}_1$	$K\acute{r}_{0.7}$
100	0.0007	−0.0104	−0.0110	0.0050	−0.0160	−0.00172	−0.00036
70	−0.0044	−0.0055	−0.0043	−0.0072	0.0029	−0.00188	0.00016







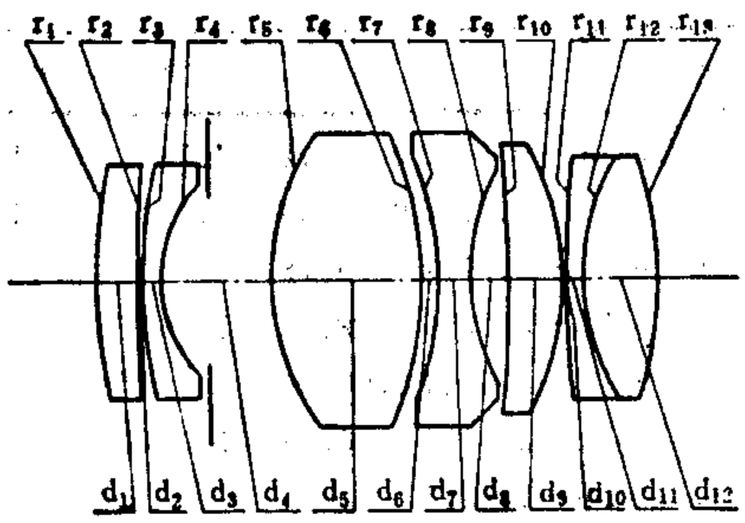




编号：06-00-005

大孔径投影镜头

E. F. L = 1　　B. F. L = 0.868　　FNo. = 1.4　　F. A. = ±8°

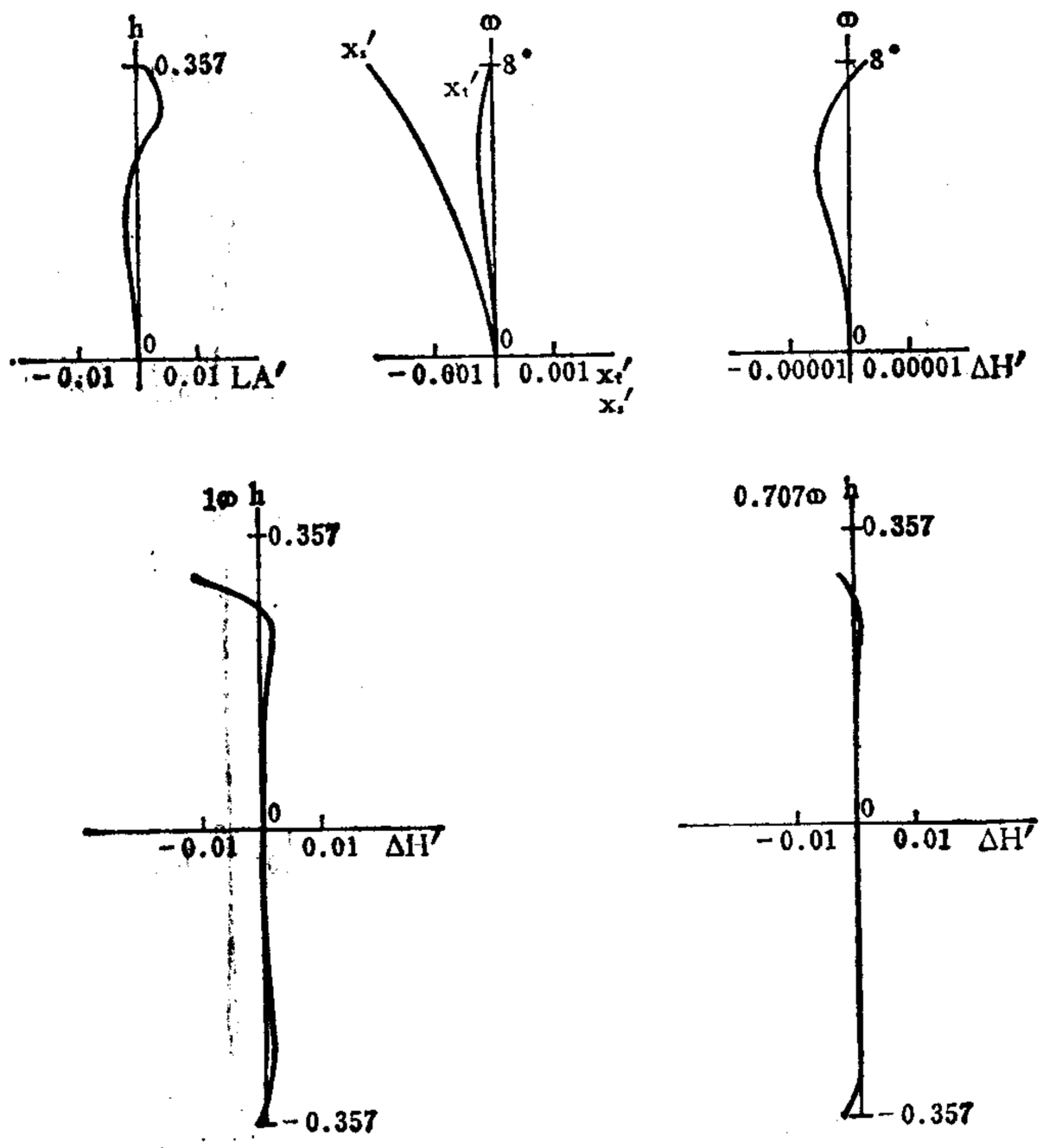


序号	r	d	n	ν	序号	r	d	n	ν
1	2.1457	0.1484	1.80518	25.5	8	0.8219	0.1215		
2	100.1089	0.0135			9	−5.3306	0.2024	1.84110	43.3
3	2.0108	0.0675	1.61840	44.2	10	−1.0931	0.0135		
4	0.5072	0.4049*			11	4.8583	0.0675	1.80518	25.5
5	0.9312	0.5533	1.84110	43.3	12	0.8435	0.2699	1.84110	43.3
6	−1.3603	0.0540			13	−1.3943			
7	−1.2051	0.1215	1.80518	25.5					

0.4049* = 0.1649 + 0.2400

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00369	−0.00026	0.00018	−0.00078	−0.00002	0.14	0.002%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.00157	0.000003	−0.00001	−0.00209	0.00208	0.22572	0.00135
70	0.00019	−0.000005	−0.00023	−0.00112	0.00089	−0.07091	0.00103

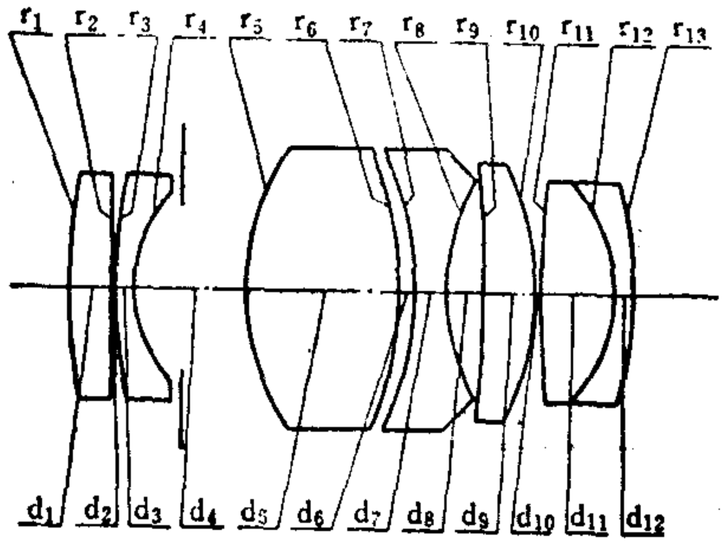
注：以上是在 1 = −∞时计算的象差值。



编号：06-00-006

大孔径投影镜头

E.F.L＝1　　B.F.L＝0.862　　FNo.＝1.4　　F.A.＝±8°

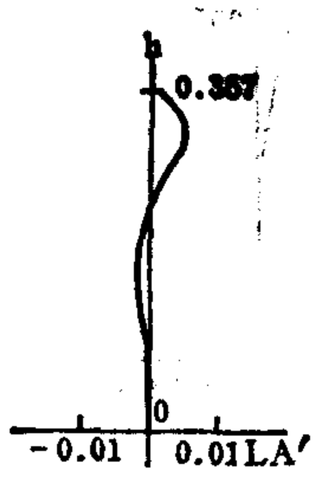


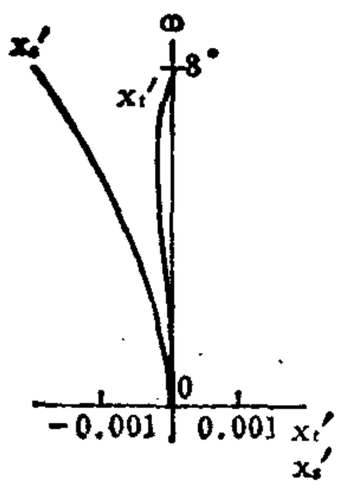
序号	r	d	n	v	序号	r	d	n	v
1	2.1457	0.1484	1.80518	25.5	8	0.8259	0.1215		
2	100.1089	0.0135			9	－5.3306	0.2024	1.84110	43.3
3	2.0108	0.0675	1.61840	44.2	10	－1.0970	0.0135		
4	0.5072	0.4049*			11	3.7787	0.2699	1.84110	43.3
5	0.9312	0.5533	1.84110	43.3	12	－0.6100	0.0675	1.80518	25.5
6	－1.3657	0.0540			13	－1.5137			
7	－1.2051	0.1215	1.80518	25.5					

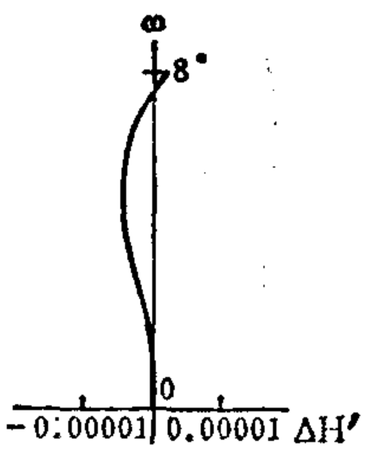
0.4049* = 0.1649 + 0.2400

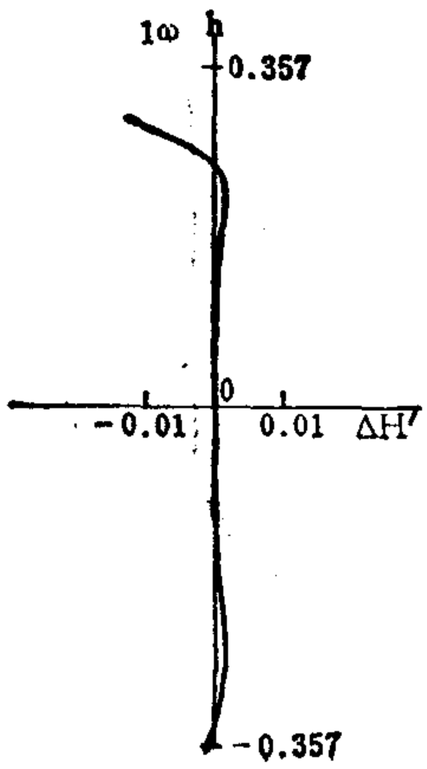
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	－0.00326	－0.00015	0.00019	－0.00078	－0.00002	0.14	0.0016%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.00091	0.000002	0.00007	－0.00206	0.00213	0.22550	0.00103
70	0.00074	－0.000005	－0.00017	－0.00109	－0.00092	－0.07063	0.00088

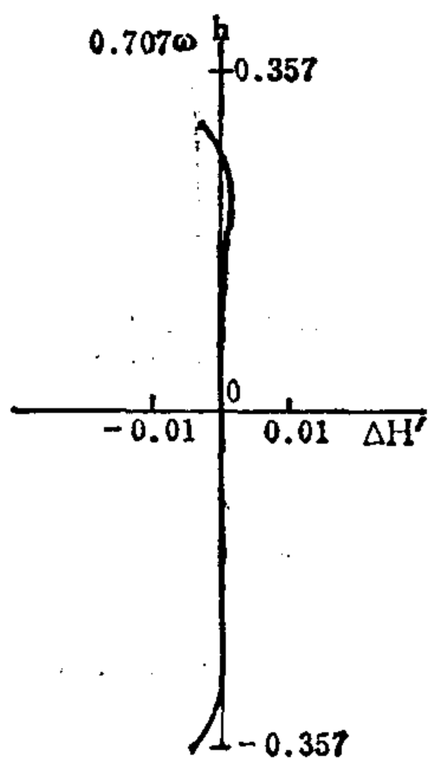
注：以上是在 l ＝ －∞时计算的象差值。







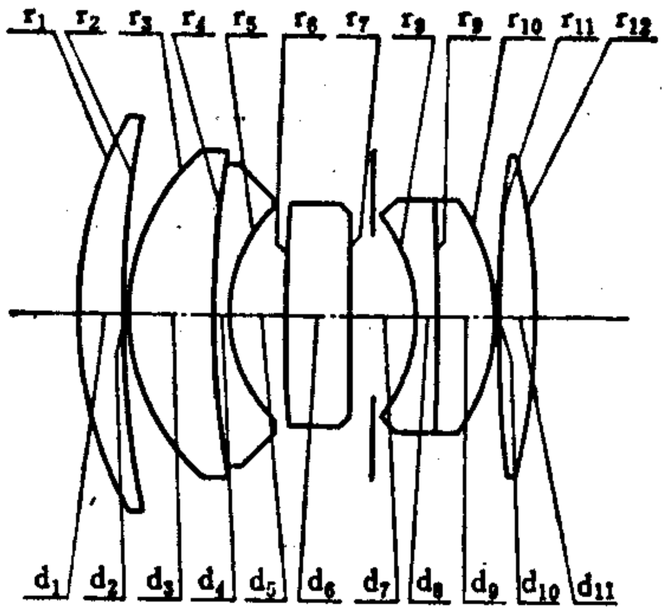




编号：06-00-007

中心快门式大孔径摄影物镜

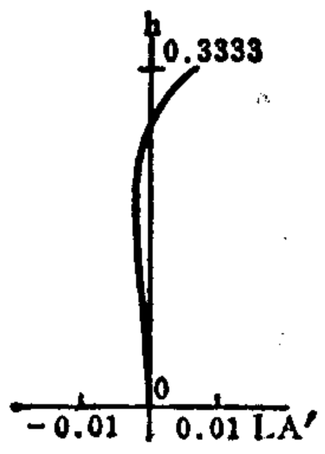
E. F. L＝1　　B. F. L＝0.579　　FNo. ＝1.5　　F. A. ＝±25°

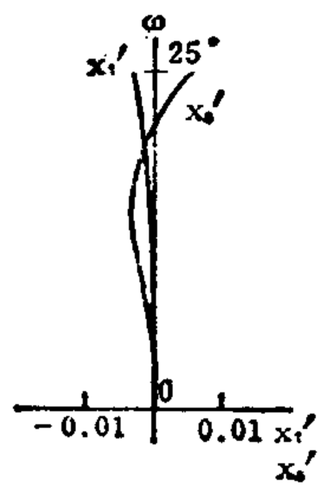


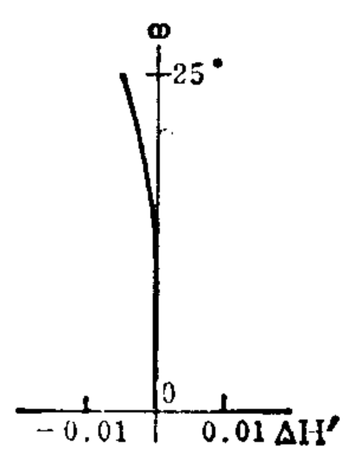
序号	r	d	n	v	序号	r	d	n	v
1	0.763	0.0840	1.83400	37.2	7	∞	0.1200*		
2	2.182	0.0022			8	− 0.300	0.0380	1.59270	35.4
3	0.398	0.1580	1.67003	47.2	9	−14.000	0.1040	1.64000	60.2
4	2.030	0.0240	1.74077	27.7	10	− 0.376	0.0022		
5	0.271	0.1020			11	2.880	0.0700	1.80710	40.7
6	7.600	0.1180	1.72342	38.0	12	− 1.210			

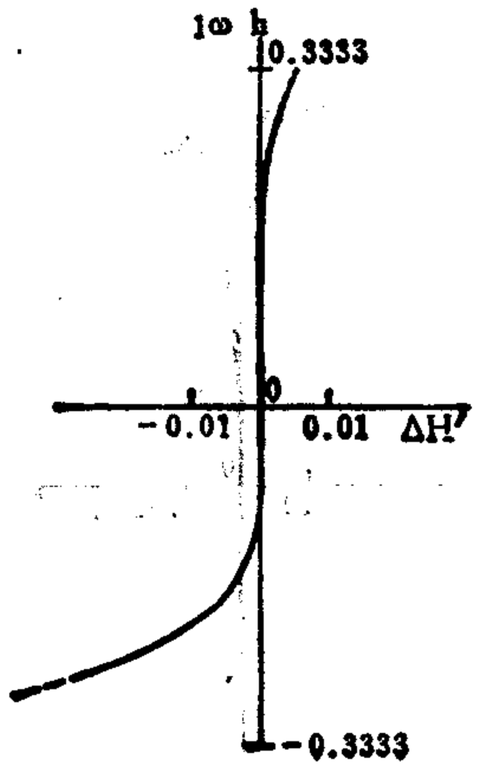
0.1200* = 0.0400 + 0.0800

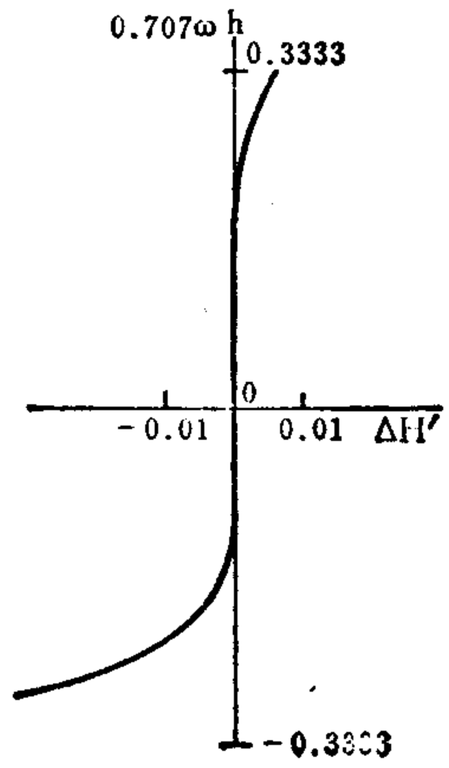
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00222	0.00056	0.00088	−0.00422	−0.00088	0.46	−1.1%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{r_1}'	$K_{r_{0.7}}'$
100	0.0057	−0.0051	−0.0025	0.0052	−0.0077	−0.3701	−0.0076
70	−0.0016	−0.0011	−0.0012	−0.0032	0.0020	−0.2805	−0.0050







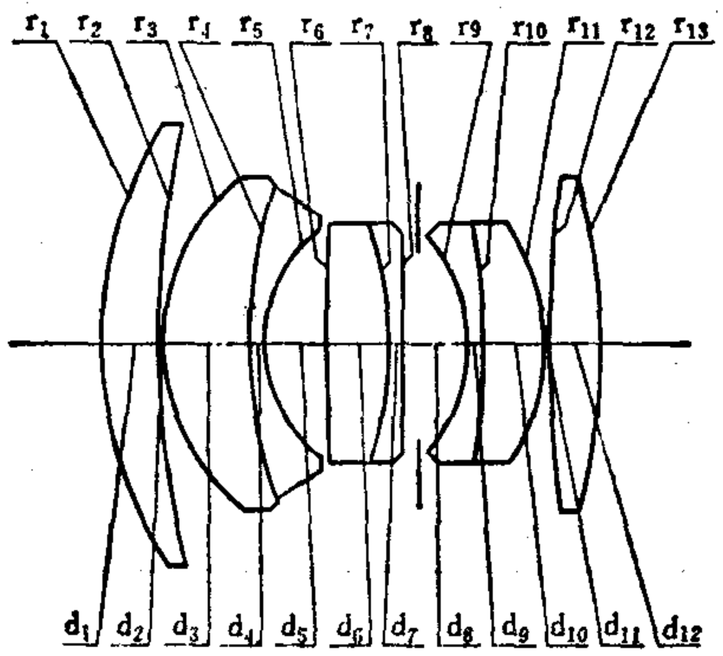




编号：06-00-008

中心快门式大孔径摄影物镜

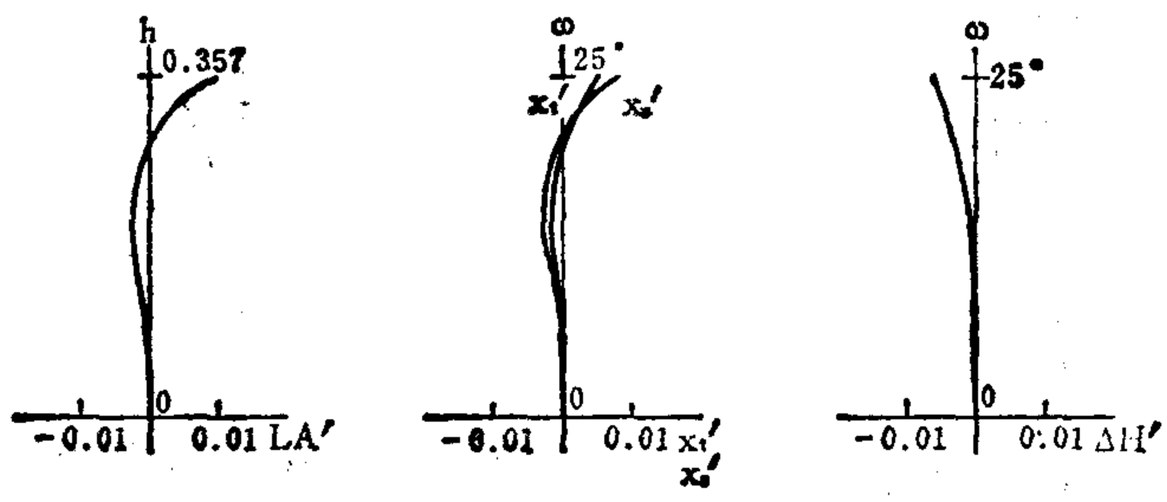
E. F. L＝1　　B. F. L＝0.515　　FNo. ＝1.4　　F. A. ＝±25°

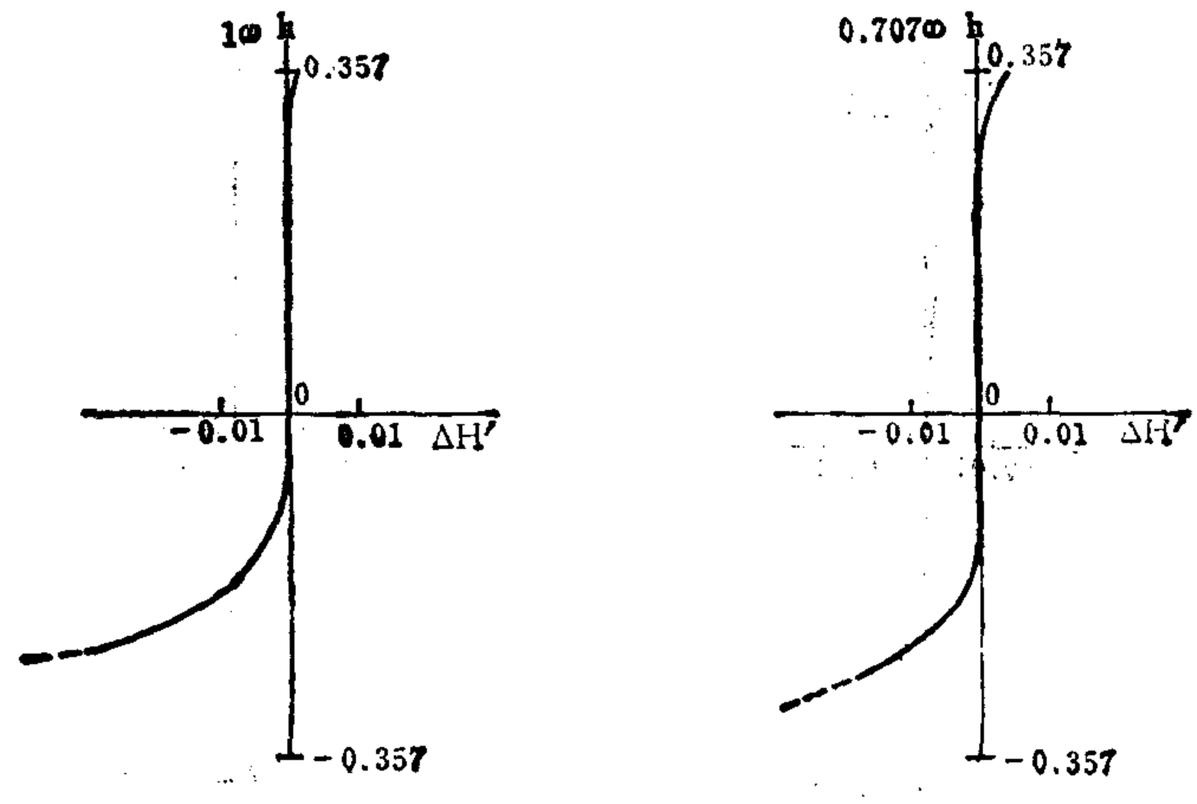


序号	r	d	n	v	序号	r	d	n	v
1	0.756	0.1040	1.83400	37.2	8	∞	0.1180*		
2	2.140	0.0022			9	−0.303	0.0240	1.59270	35.4
3	0.397	0.1600	1.69680	55.6	10	−1.500	0.1200	1.69680	55.6
4	0.920	0.0240	1.72825	28.3	11	−0.402	0.0022		
5	0.263	0.1120			12	2.230	0.0960	1.80610	40.7
6	5.000	0.1160	1.63930	45.0	13	−1.178			
7	−0.700	0.0240	1.74077	27.7					

0.1180* = 0.0300 + 0.0880

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00271	0.00112	0.00036	−0.00470	−0.00038	0.46	−1.3%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	Kr_1'	$Kr_{0.7}$
100	0.0098	−0.0061	0.0046	0.0081	−0.0035	−0.3910	−0.0155
70	−0.0014	−0.0012	−0.0015	−0.0032	0.0017	−0.2858	−0.0062

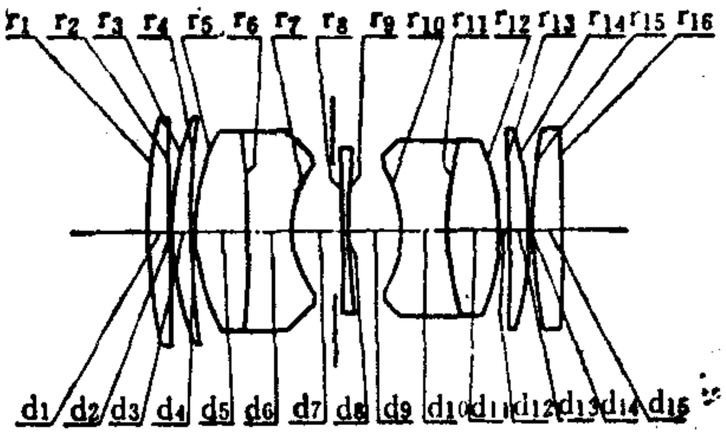




编号：06-00-009

大孔径复制镜头

E. F. L = 1　　B. F. L = 0.350　　FNo. = 2　　F. A. = ±6°

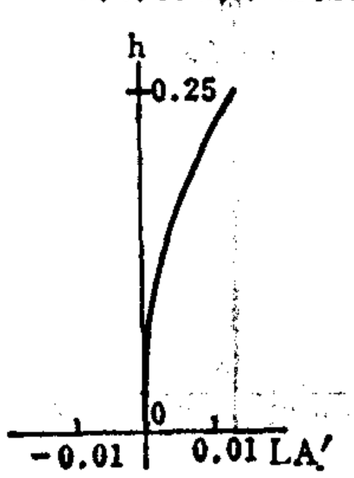


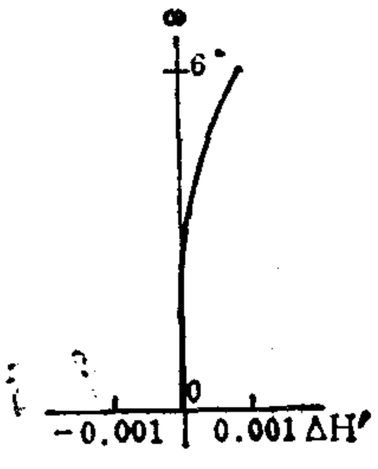
序号	r	d	n	v	序号	r	d	n	v
1	1.1376	0.0500	1.65778	60.2	9	1.7372	0.1125		
2	12.5000	0.0038			10	-0.2819	0.1045	1.61470	41.0
3	0.6780	0.0469	1.61986	60.7	11	0.6516	0.1125	1.63776	60.3
4	-1.6923	0.0038			12	-0.4824	0.0200		
5	0.4519	0.1125	1.65778	60.2	13	-7.0170	0.0500	1.65778	60.2
6	-2.9060	0.1070	1.60667	40.8	14	-0.8089	0.0075		
7	0.2488	0.1125*			15	1.2411	0.0625	1.67076	55.8
8	-4.9833	0.0125	1.51097	60.5	16	-5.4109			

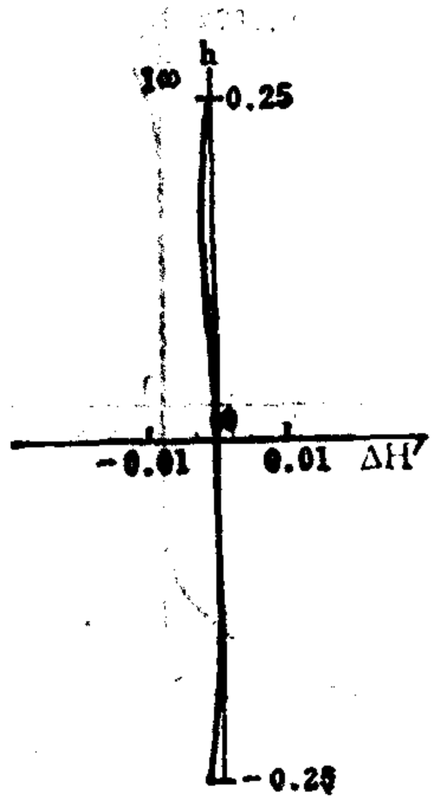
0.1125* = 0.0925 + 0.0200

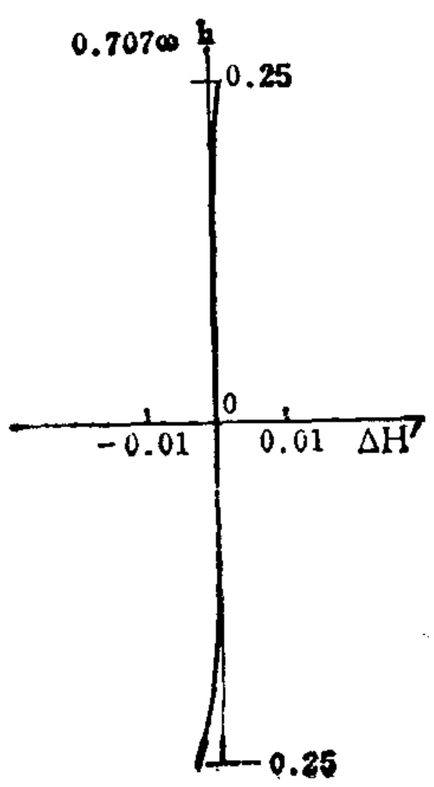
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	0.00132	-0.00020	-0.00031	-0.00004	0.00042	0.1	0.83%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	$K\acute{r}_1$	$K\acute{r}_{0.7}$
100	0.0138	0.00088	-0.0086	-0.0029	-0.0057	-0.00128	-0.00055
70	0.0059	0.00030	-0.0041	-0.0014	-0.0027	-0.00106	-0.00044

注：以上是在 l = -∞时计算的象差值。





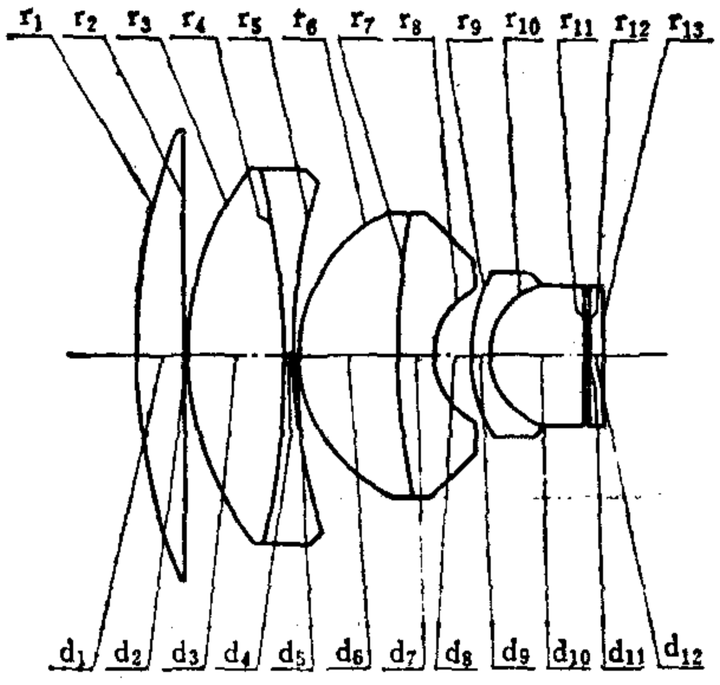




编号：[illegible]

大 孔 径 透 镜 系 统

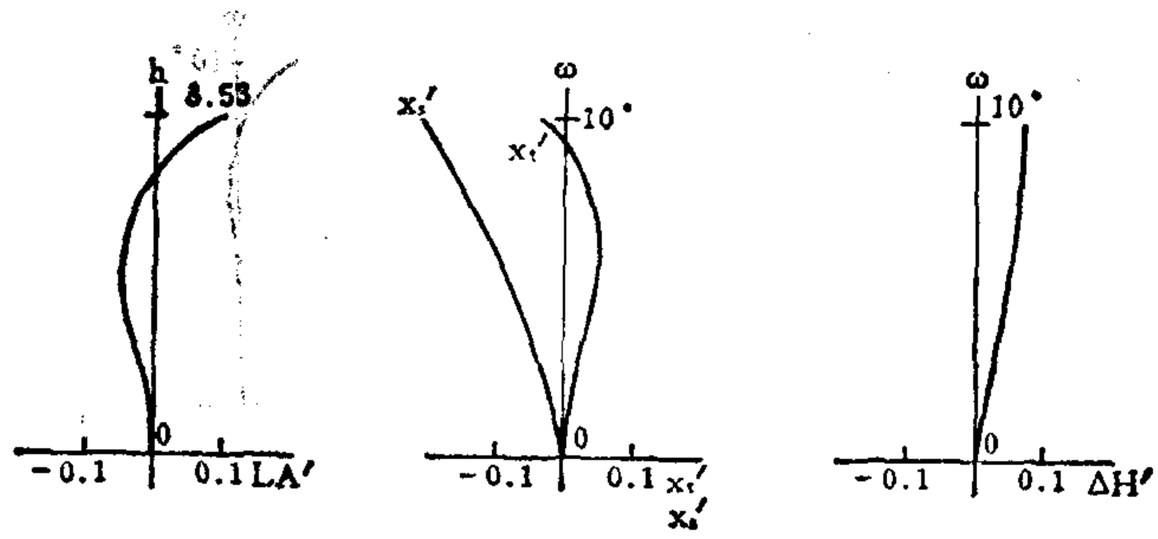
E.F.L＝99.98　　B.F.L＝0　　FNo.＝0.68　　F.A.＝±10°

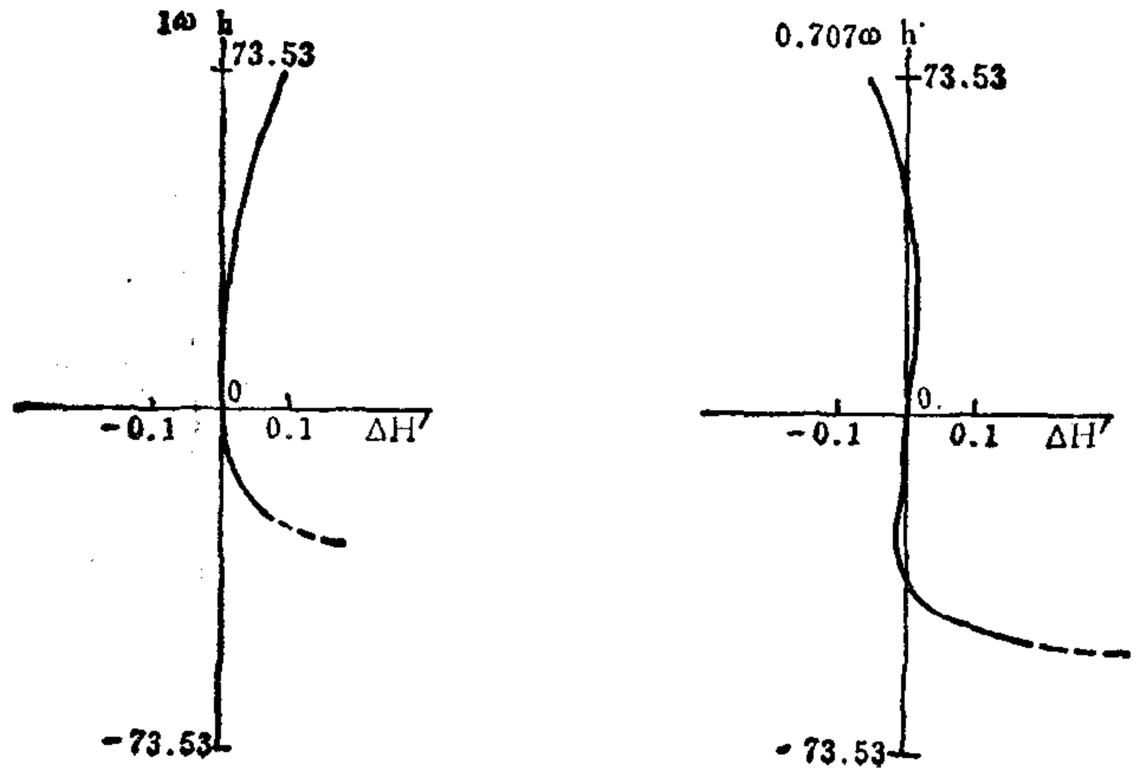


序号	r	d	n	ν	序号	r	d	n	ν
1	227.97	16.59	1.59424	58.02	8	27.21	13.19*		
2	∞	0.34			9	64.25	7.45	1.58779	36.75
3	111.65	35.91	1.64129	55.15	10	26.67	34.04	1.84035	42.04
4	-274.08	3.62	1.67764	31.97	11	∞	1.20		
5	212.75	1.19			12	∞	5.11	1.50207	61.24
6	57.26	36.34	1.64514	57.70	13	∞			
7	274.08	13.79	1.72734	29.03					

13.19* = 12.19 + 1.00

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	-0.2743	-0.0770	0.2884	-0.5980	0.3407	17.62	0.36%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	$K_{\acute{r}_1}$	$K_{\acute{r}_{0.7}}$
100	-0.1006	0.064	-0.035	-0.212	0.177	-20.52	-4.549
70	-0.0374	0.059	0.051	-0.129	0.180	-5.870	0.153

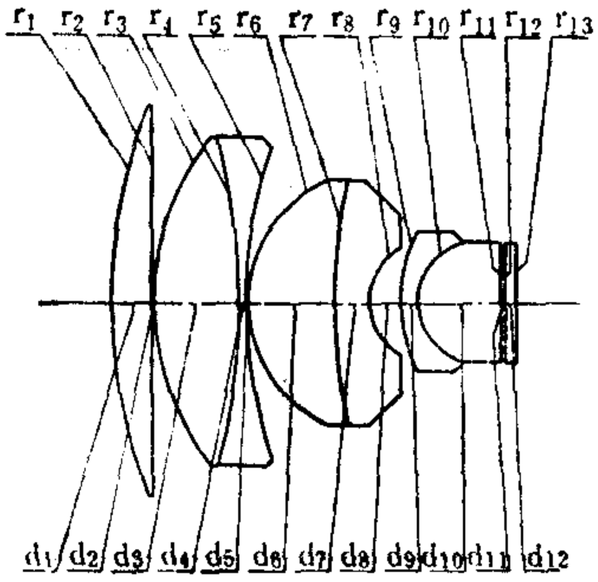




编号：06-00-011

大孔径透镜系统

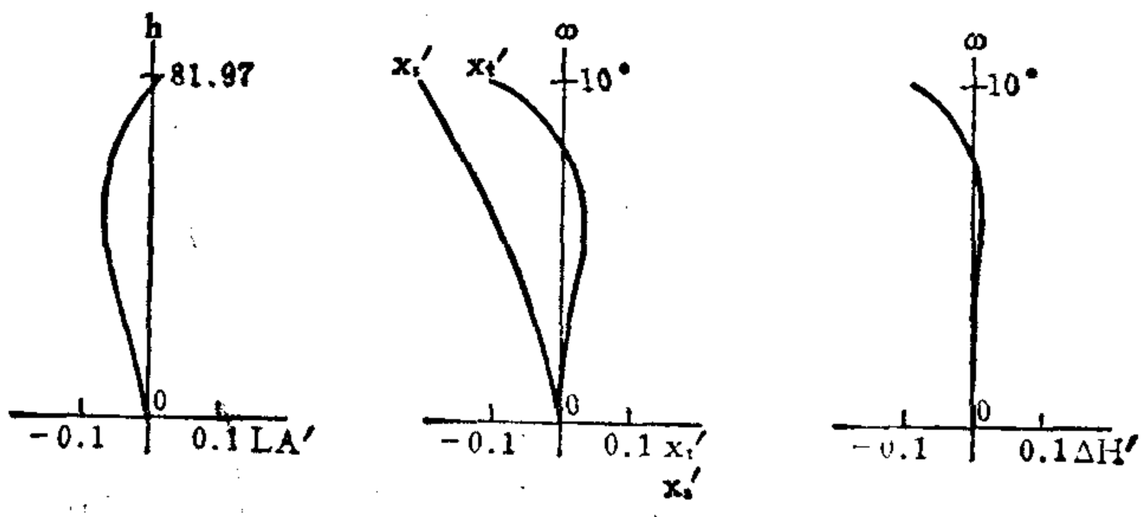
E. F. L＝100　　B. F. L＝0　　FNo. ＝0.61　　F. A. ＝±10°

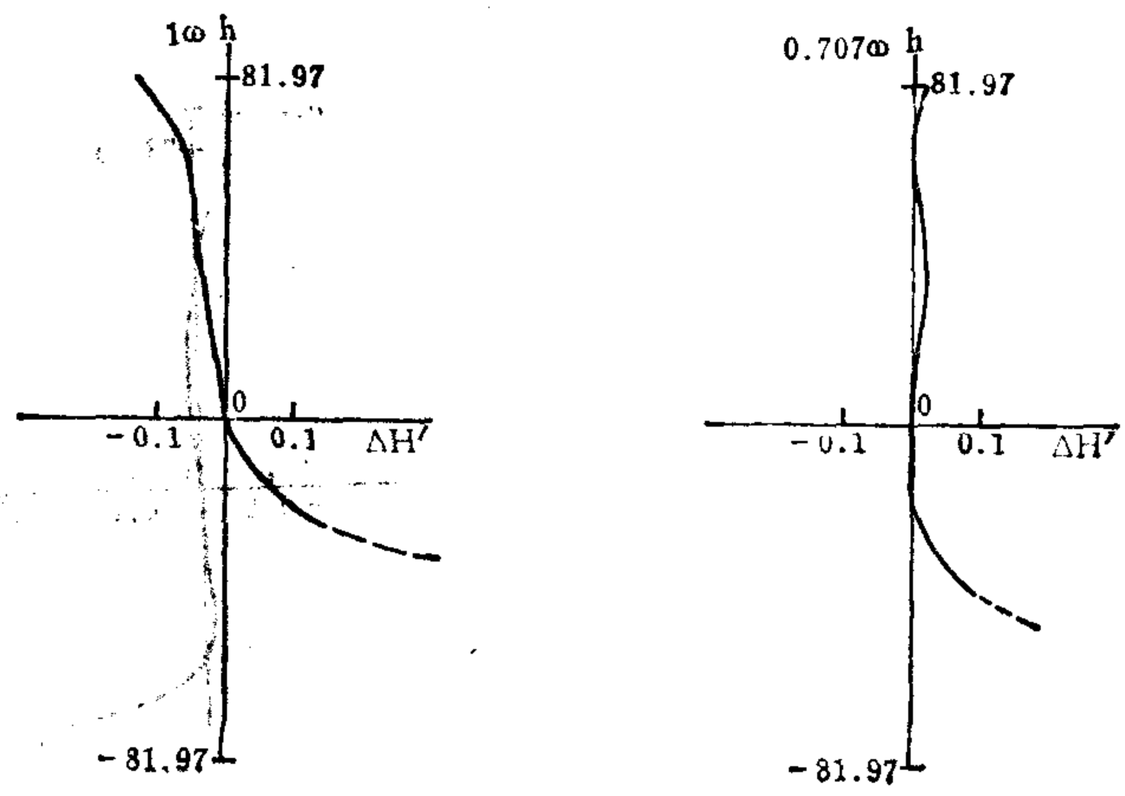


序号	r	d	n	v	序号	r	d	n	v
1	243.35	17.71	1.59423	58.02	8	27.94	13.40*		
2	∞	0.36			9	71.28	7.95	1.62118	30.67
3	119.19	38.34	1.66152	50.59	10	26.95	36.34	1.92732	35.49
4	−260.77	3.50	1.69416	30.95	11	∞	1.13		
5	218.89	0.36			12	∞	5.45	1.50207	61.21
6	59.74	38.38	1.64304	59.85	13	∞			
7	254.82	14.72	1.72734	29.03					

13.40* = 12.40 + 1.00

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.4607	−0.0159	0.3428	−0.7218	0.1326	17.63	−0.5%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.018	−0.089	−0.106	−0.209	0.103	−60.60	−5.276
70	−0.072	0.004	0.030	−0.126	0.156	−7.694	0.866

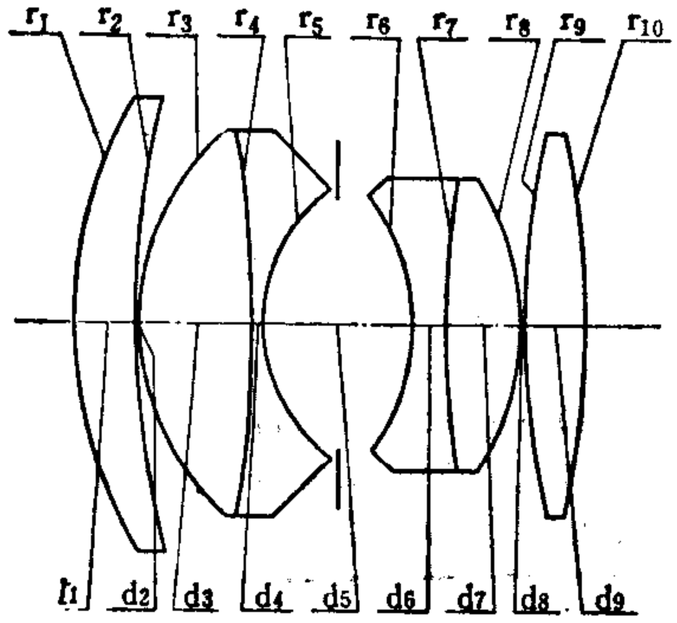




编号：06-00-012

大孔径摄影物镜

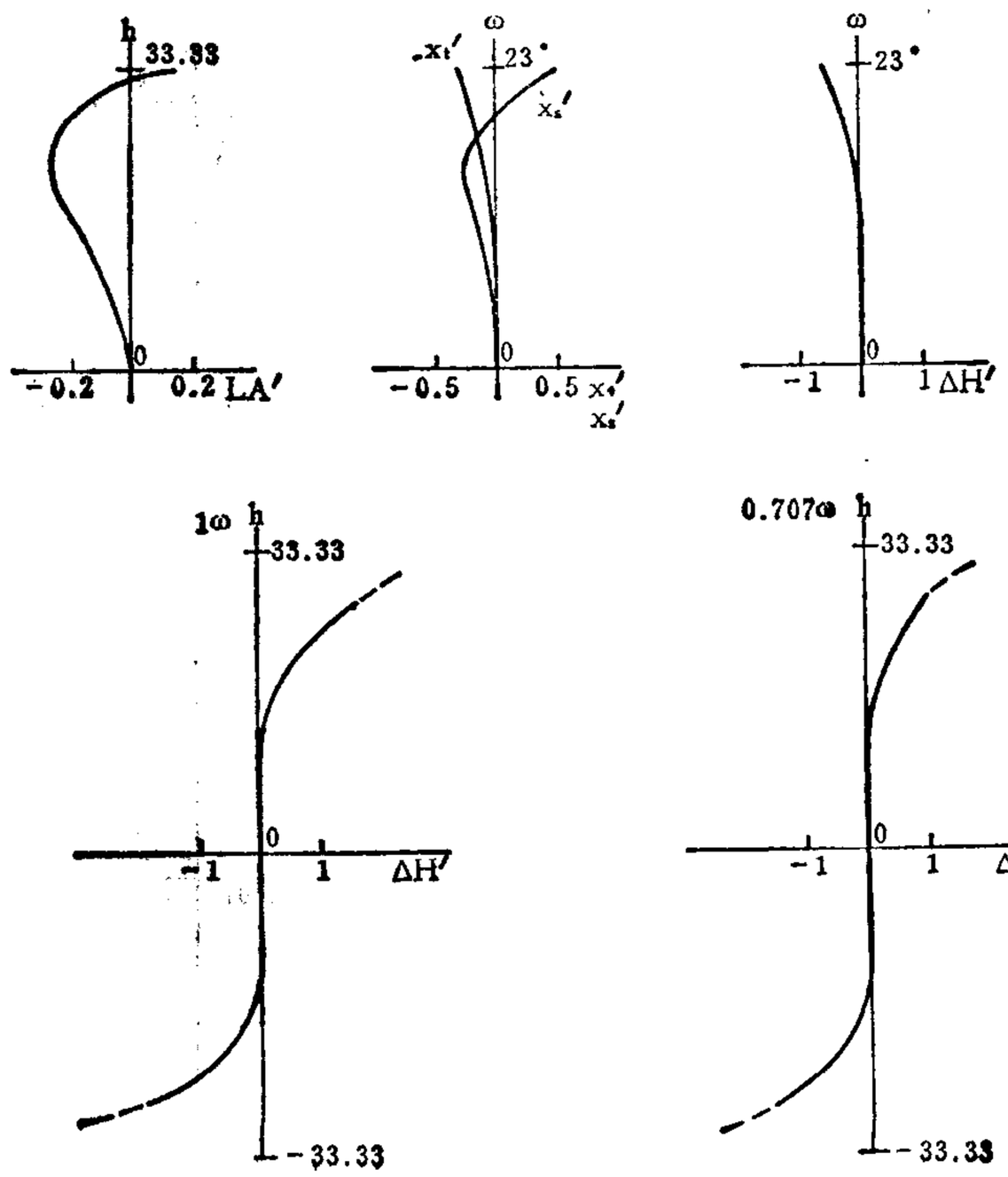
E. F. L＝100　　B. F. L＝56.25　　FNo. ＝1.5　　F. A. ＝±23°



序号	r	d	n	ν	序号	r	d	n	ν
1	67.99	9.0	1.76200	40.3	6	− 32.65	5.0	1.67270	32.2
2	206.10	0.1			7	200.00	11.0	1.71700	47.9
3	39.19	16.6	1.66422	49.2	8	− 41.75	0.1		
4	−200.00	2.0	1.67270	32.2	9	122.26	9.0	1.60717	40.2
5	25.34	21.8*			10	−156.97			

21.8* = 10.9 + 10.9

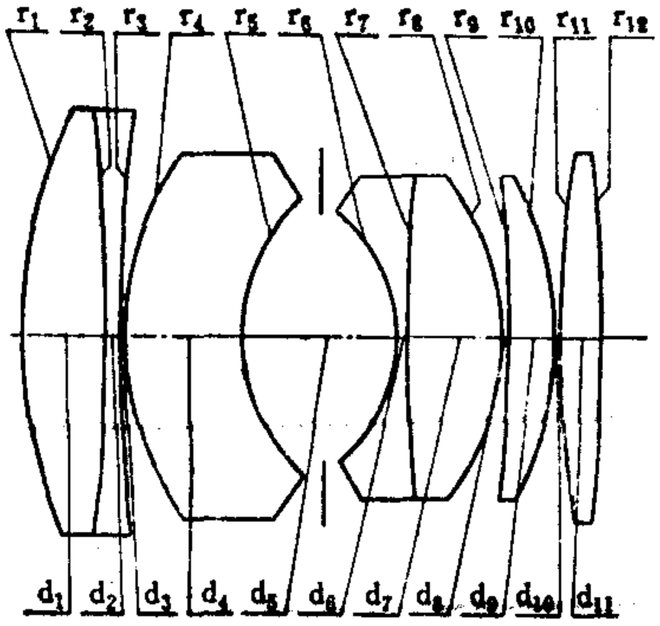
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.2455	0.0035	0.0862	−0.3085	−0.0107	42.45	−1.3%
h 或 ω%	**LA′**	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	**0.148**	− 0.584	− 0.319	0.488	− 0.807	−2.5270	−0.0088
70	**− 0.282**	− 0.086	− 0.107	− 0.195	0.088	−1.3647	−0.0799



编号：06-00-013

单镜头反射式大孔径摄影物镜

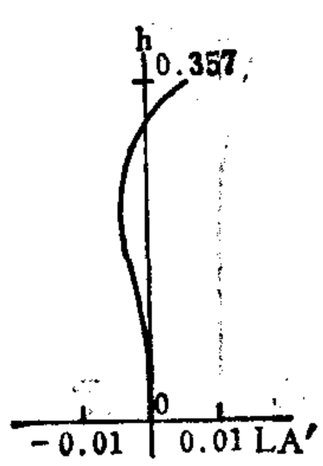
E. F. L = 1　　B. F. L = 0.720　　FNo. = 1.4　　F. A. = ±23°

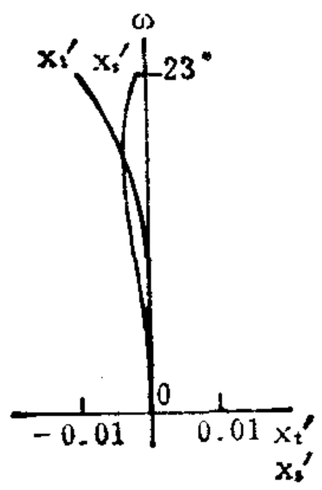


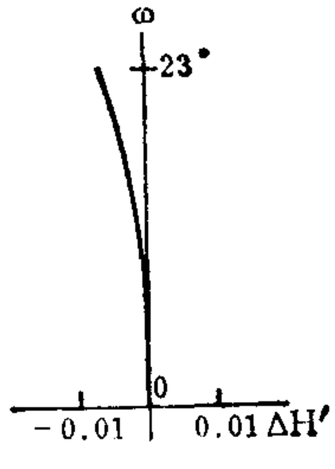
序号	r	d	n	ν	序号	r	d	n	ν
1	0.9823	0.1500	1.7810	44.6	7	3.3970	0.1736	1.6968	55.6
2	−3.7800	0.0280	1.7174	29.4	8	−0.5056	0.0030		
3	3.0440	0.0030			9	−3.0170	0.0870	1.7530	52.4
4	0.6030	0.2171	1.6263	35.7	10	−0.6617	0.0030		
5	0.3606	0.2858*			11	2.1310	0.0780	1.7200	52.0
6	−0.3085	0.0200	1.7006	30.1	12	−3.8350			

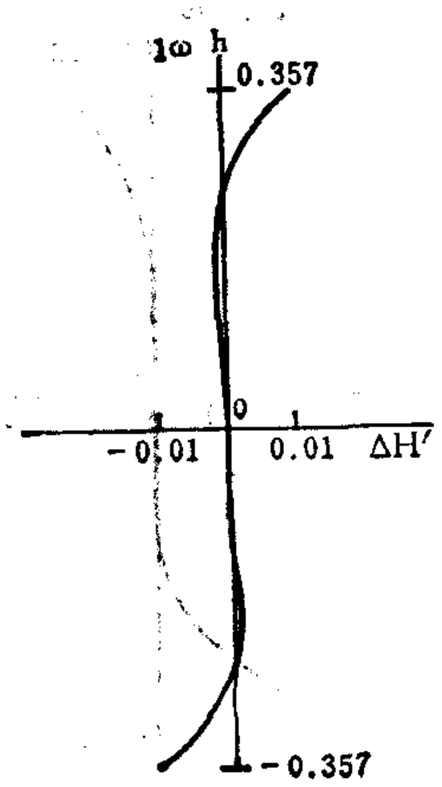
0.2858* = 0.1429 + 0.1429

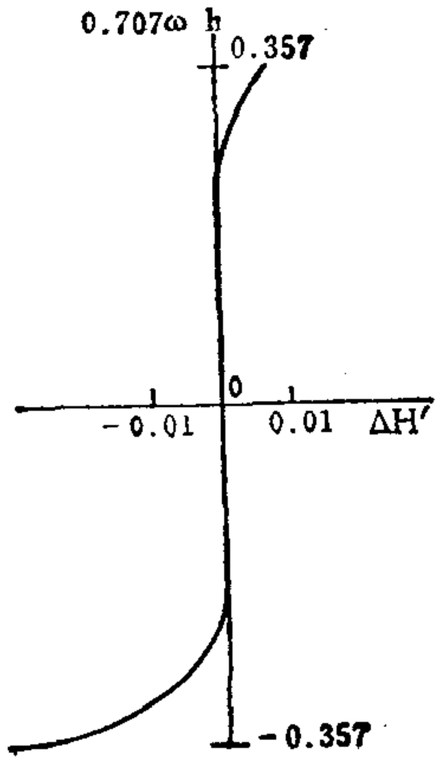
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP (1ω)
	−0.00370	0.00102	0.00072	−0.00339	−0.00505	0.42	−1.5%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.00634	−0.0065	−0.0096	−0.0013	−0.0083	−0.00077	0.00040
70	−0.00294	−0.0026	−0.0023	−0.0031	0.0008	−0.01169	−0.00051







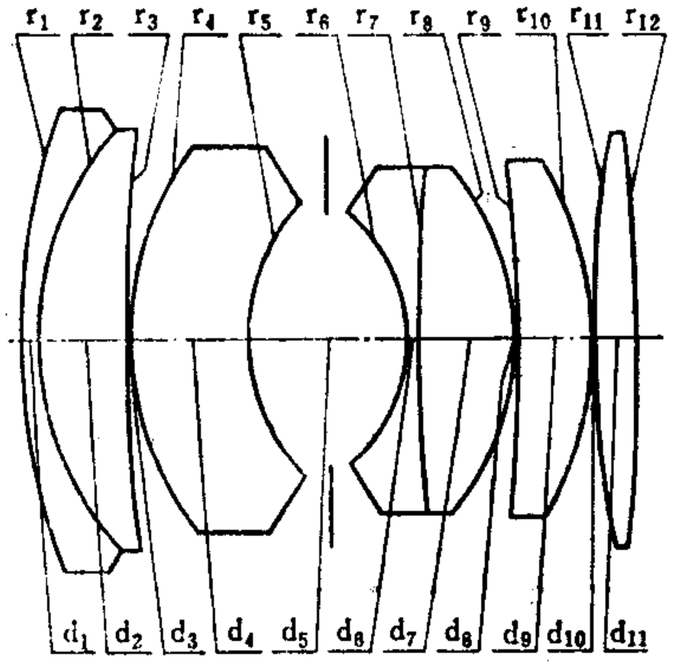




编号：06-00-014

单镜头反射式大孔径摄影物镜

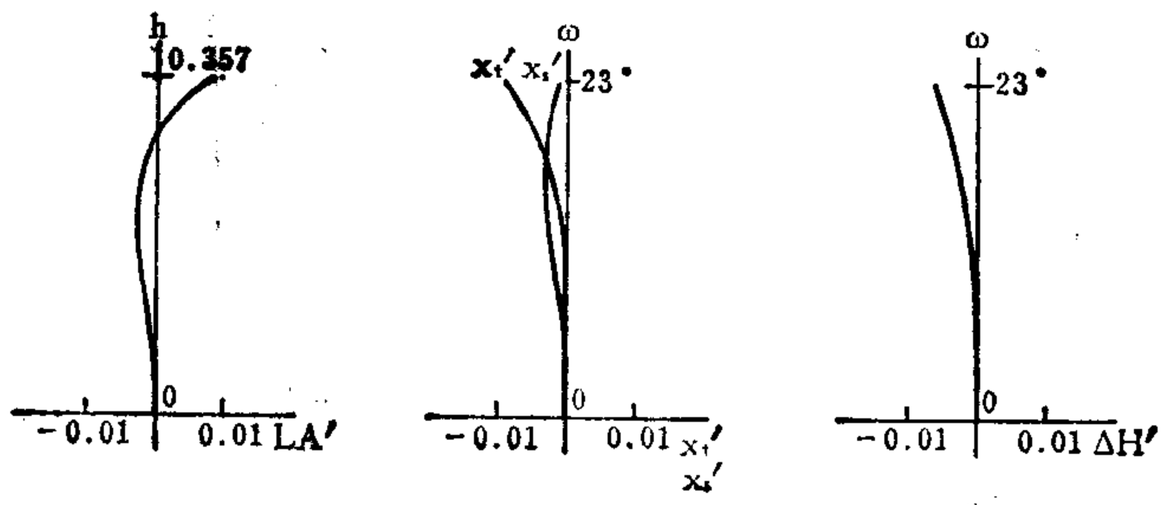
E. F. L＝1　　B. F. L＝0.720　　FNo. ＝1.4　　F. A. ＝±23°

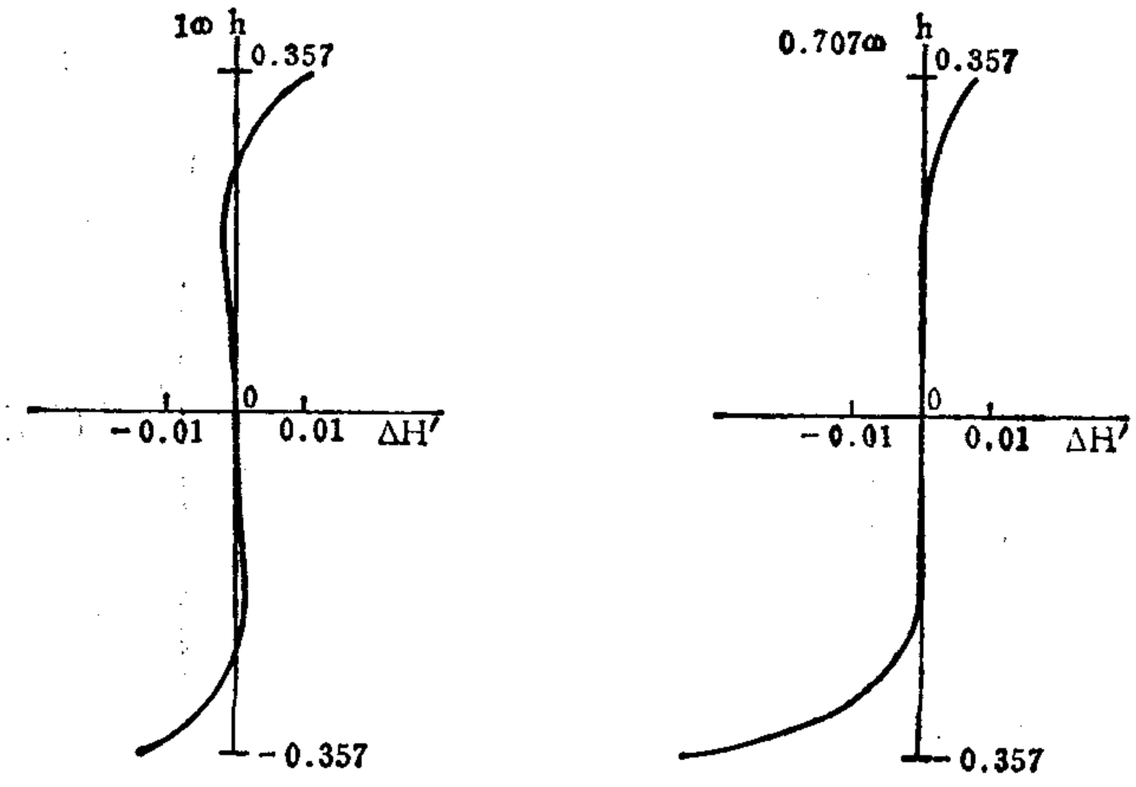


序号	r	d	n	ν	序号	r	d	n	ν
1	1.2152	0.0280	1.7006	30.1	7	3.5740	0.1745	1.6968	55.6
2	0.5744	0.1600	1.8050	41.0	8	−0.5074	0.0030		
3	4.0730	0.0030			9	−2.9450	0.0870	1.7530	52.4
4	0.5839	0.2153	1.6261	39.1	10	−0.6674	0.0030		
5	0.3616	0.2833*			11	2.2020	0.0780	1.7200	52.0
6	−0.3089	0.0200	1.7006	30.1	12	−3.5170			

0.28330* = 0.14165 + 0.14165

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00393	0.00106	0.00072	−0.00322	−0.00500	0.42	−1.5%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.00849	−0.0062	−0.00940	−0.00078	−0.00862	−0.00041	0.00058
70	−0.00305	−0.0026	−0.00200	−0.00270	0.00070	−0.01286	−0.00050

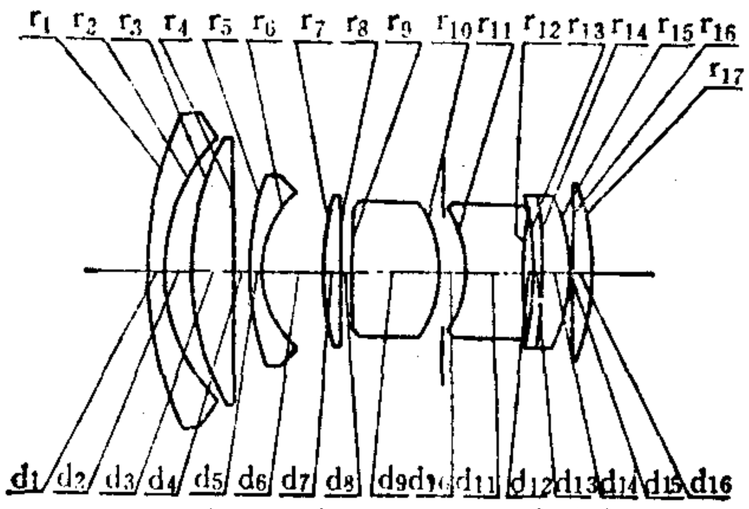




编号：06-00-015

大孔径反远距型广角物镜

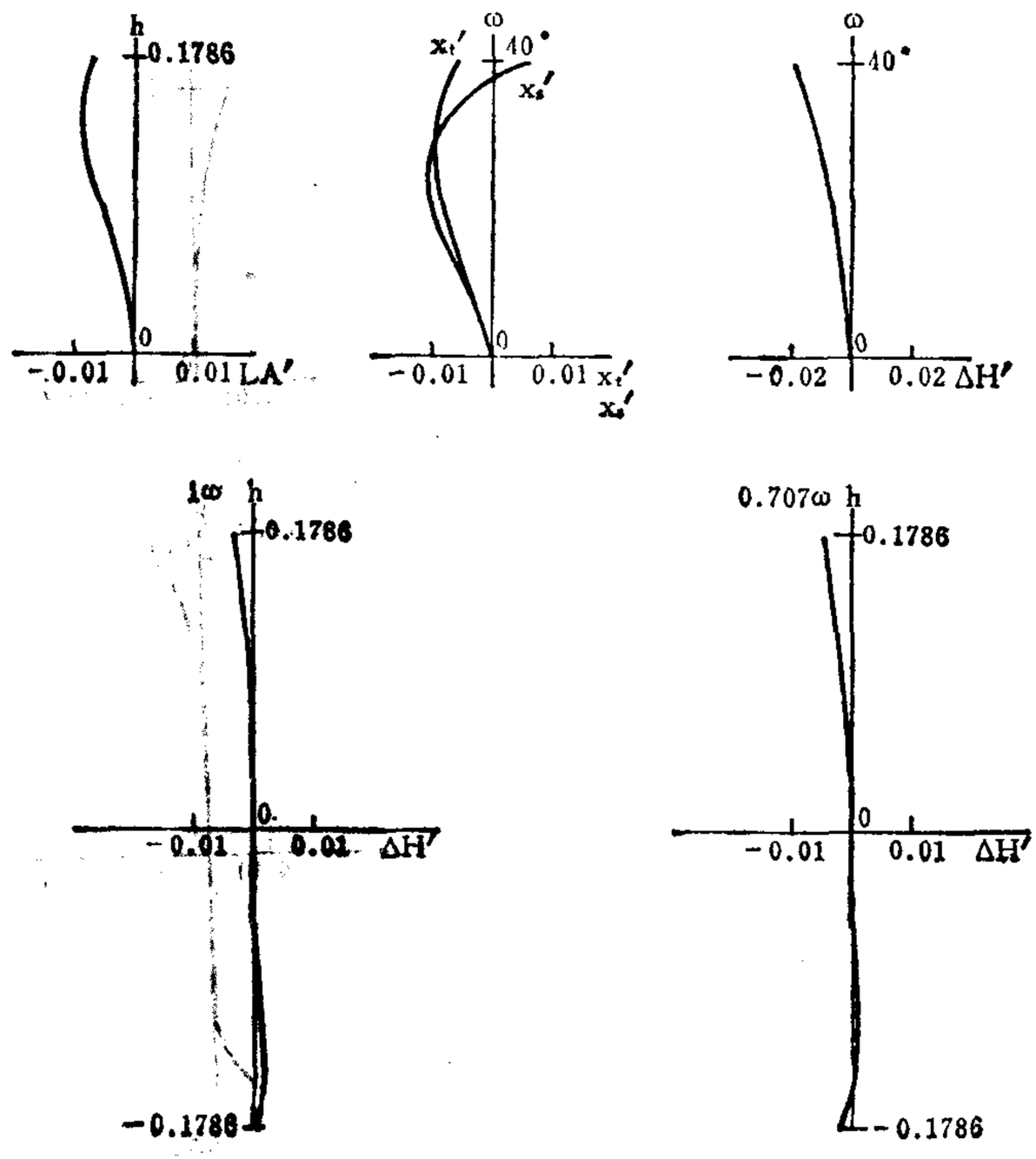
E. F. L＝0.982　　B. F. L＝1.417　　FNo. ＝2.75　　F. A. ＝±40°



序号	r	d	n	ν	序号	r	d	n	ν
1	1.4927	0.0563	1.66672	48.32	10	−0.7445	0.1070*		
2	0.7418	0.1336			11	−0.9866	0.2268	1.67270	32.10
3	1.4464	0.1542	1.62041	60.27	12	1.6820	0.0507		
4	27.1473	0.0704			13	−1.1886	0.0338	1.80518	25.43
5	1.1989	0.0423	1.67790	55.33	14	−3.9876	0.1183	1.77250	49.57
6	0.4236	0.2714			15	−0.7141	0.0042		
7	1.2905	0.0648	1.80518	25.43	16	8.6313	0.0901	1.77250	49.57
8	34.2692	0.0423			17	−1.4720			
9	24.0238	0.3358	1.58913	61.11					

0.1070* = 0.0300 + 0.0770

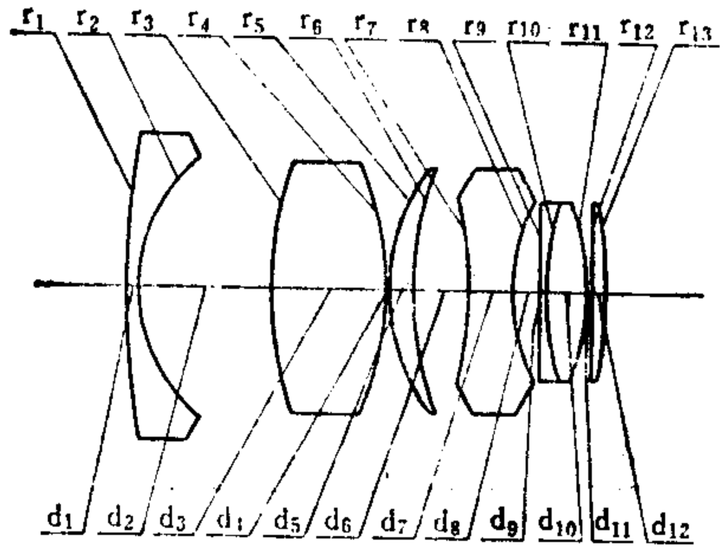
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00149	0.00037	0.00011	−0.00192	−0.00836	0.82	−2.3%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K'_{T1}	$K'_{T0.7}$
100	−0.00690	−0.0189	−0.00612	0.00495	−0.01107	−0.001190	−0.000086
70	−0.00796	−0.0097	−0.00991	−0.01054	0.00063	−0.003202	−0.000639



编号：06-00-016

大孔径广角摄影物镜

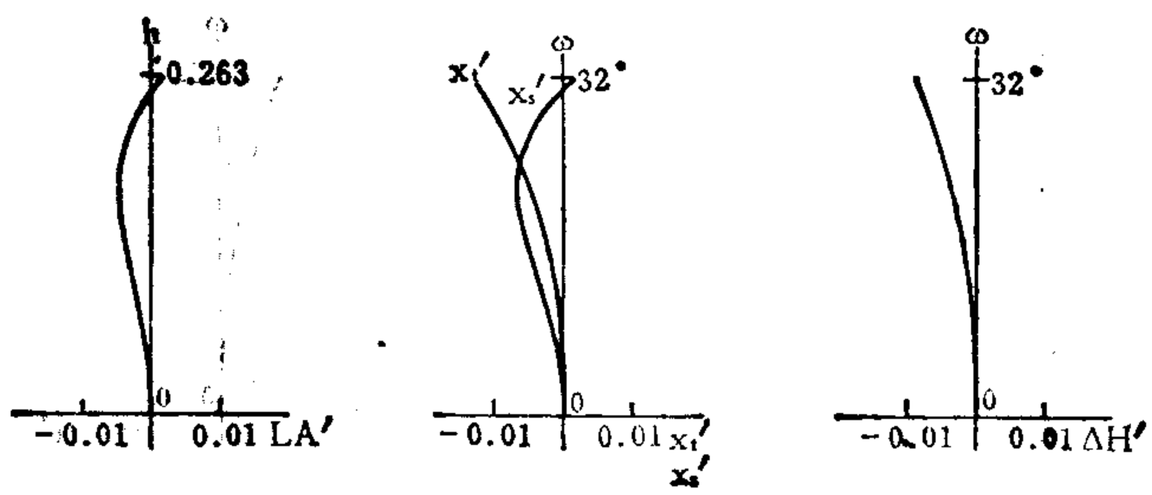
E. F. L＝1　　B. F. L＝1.05　　FNo. ＝1.9　　F. A. ＝±32°

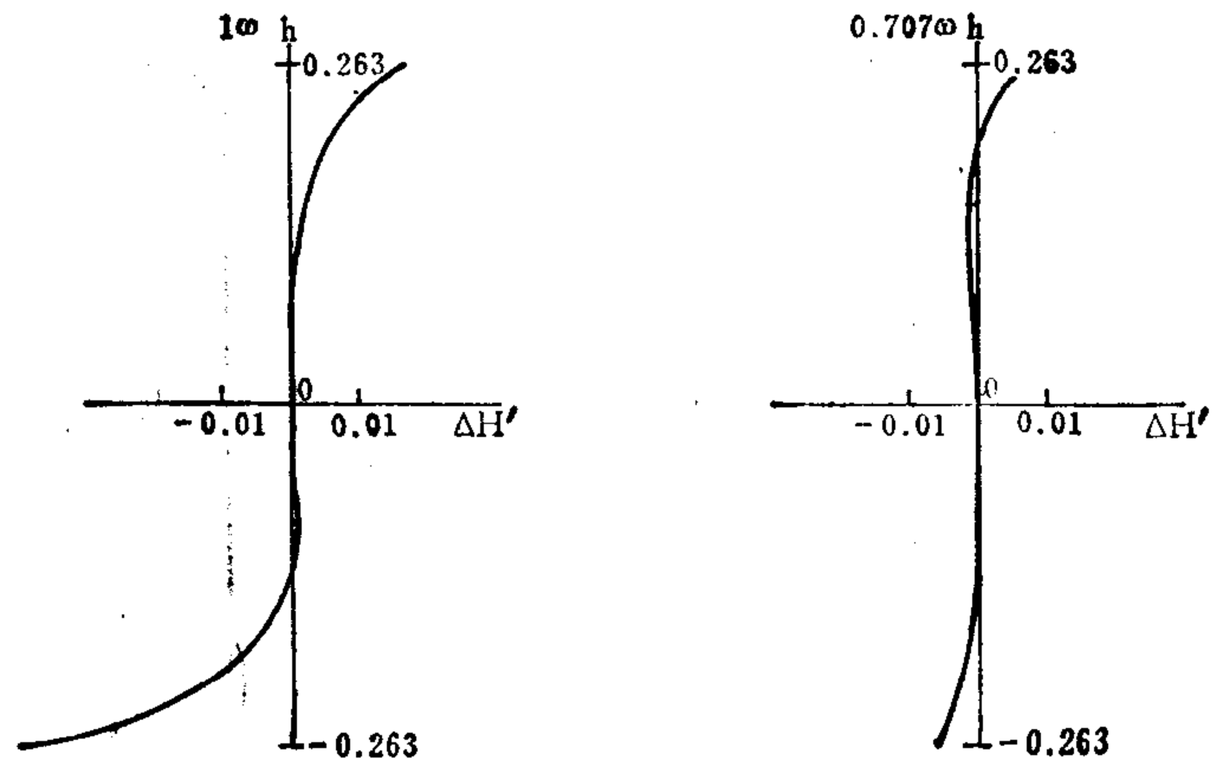


序号	r	d	n	v	序号	r	d	n	v
1	3.4001	0.0404	1.6775	55.4	8	0.7259	0.0920		
2	0.6212	0.4990			9	22.3110	0.0290	1.7330	28.2
3	1.4391	0.4208	1.6968	55.6	10	1.1445	0.1500	1.6968	55.6
4	−1.2914	0.0050			11	−0.9769	0.0050		
5	0.7370	0.0900	1.6775	55.4	12	∞	0.0550	1.6700	57.1
6	1.2866	0.1900			13	−1.9633			
7	−1.6813	0.1731*	1.6477	33.9					

0.1731* = 0.0881 + 0.0850

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00242	−0.00056	0.00035	−0.00318	−0.00643	0.62	−1.4%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	$K\acute{T}_1$	$K\acute{T}_{0.7}$
100	0.0020	−0.0085	−0.0128	0.0021	−0.0149	−0.01144	−0.00065
70	−0.0048	−0.0044	−0.0052	−0.0067	0.0015	0.00052	−0.00032

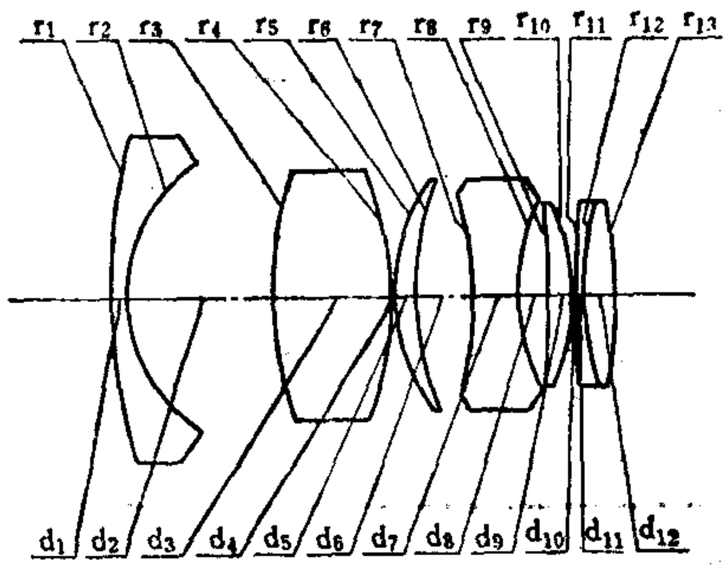




编号：06-00-017

大孔径广角摄影物镜

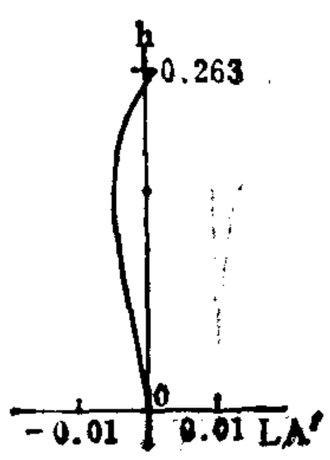
E. F. L＝1　　B. F. L＝1.05　　FNo. ＝1.9　　F. A. ＝±32°

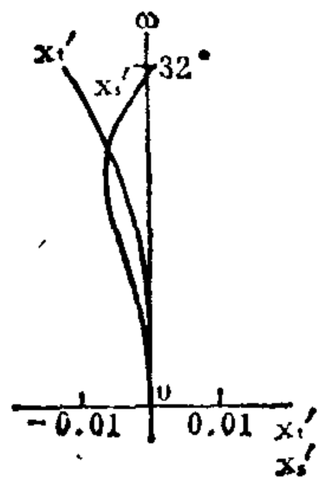


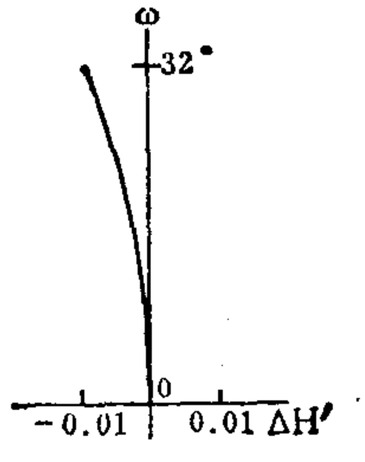
序号	r	d	n	ν	序号	r	d	n	ν
1	2.6613	0.0437	1.6779	53.3	8	0.7883	0.1040		
2	0.5957	0.5343			9	－6.0460	0.0893	1.6700	57.1
3	1.4484	0.4281	1.6968	55.6	10	－0.8689	0.0050		
4	－1.2388	0.0050			11	7.7143	0.0290	1.7330	28.2
5	0.7469	0.0900	1.6583	58.5	12	1.1786	0.1123	1.6968	55.6
6	1.2354	0.1898			13	－2.0666			
7	－1.4100	0.1731*	1.6477	33.9					

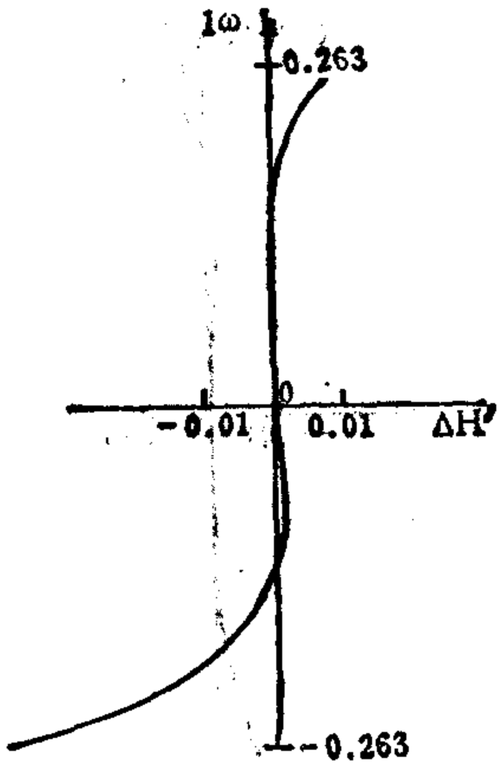
$0.1731^* = 0.0881 + 0.0850$

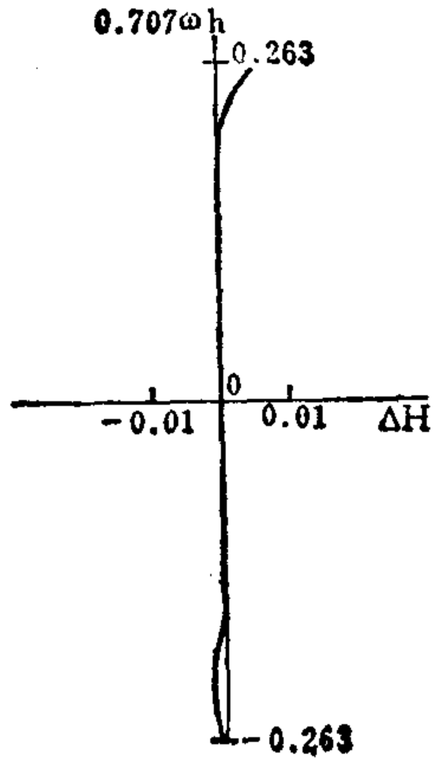
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	－0.00238	－0.00038	0.00044	－0.00310	－0.00624	0.62	－1.3%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}	$K_{T0.7}$
100	0.0018	－0.0084	－0.0121	0.0013	－0.0134	－0.01586	－0.00297
70	－0.0044	－0.0043	－0.0043	－0.0064	0.0021	0.00292	－0.00046







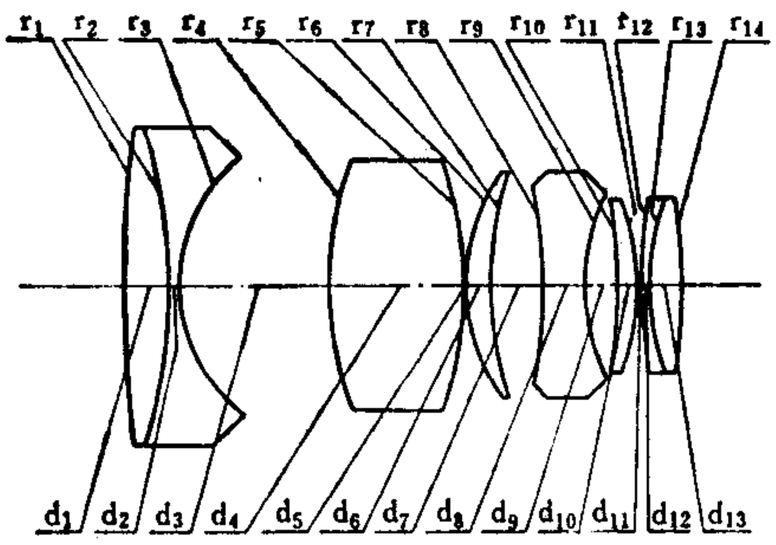




编号：06-00-018

大孔径广角摄影物镜

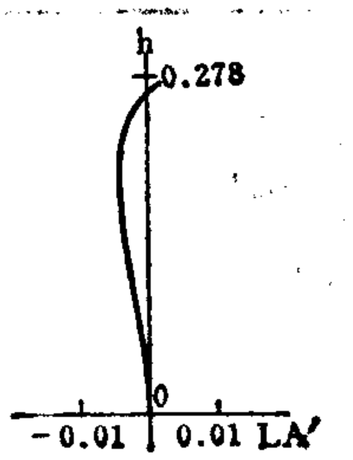
E.F.L＝1　　B.F.L＝1.05　　FNo.＝1.8　　F.A.＝±32°

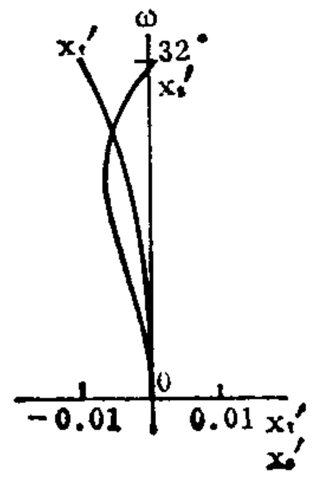


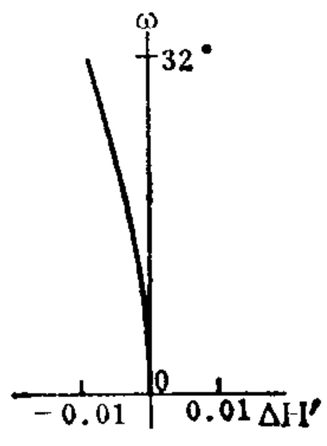
序号	r	d	n	v	序号	r	d	n	v
1	6.4340	0.1650	1.7200	50.3	8	−1.7419	0.1588*	1.6477	33.9
2	−1.7075	0.0350	1.6176	52.7	9	0.7814	0.1040		
3	0.6095	0.5437			10	−3.8677	0.0833	1.7080	53.3
4	1.3240	0.4863	1.6775	55.4	11	−0.9354	0.0050		
5	−1.4480	0.0049			12	3.2310	0.0263	1.7557	27.2
6	0.7721	0.0837	1.6775	55.4	13	0.9205	0.1061	1.7080	53.3
7	1.3493	0.1817			14	−2.5256			

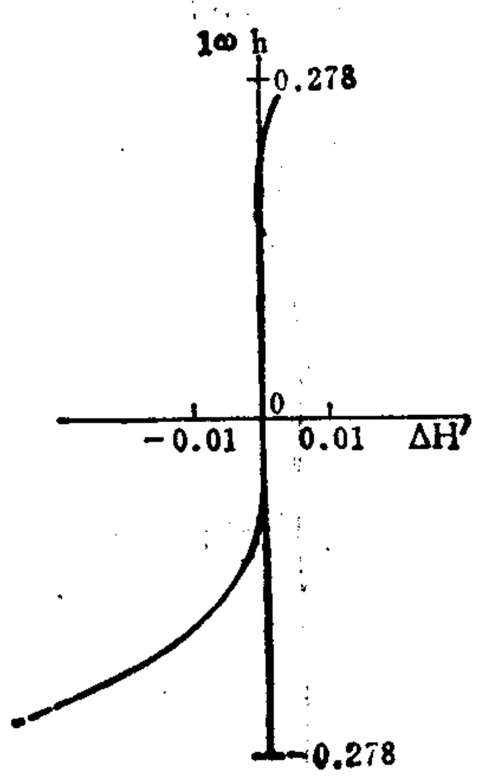
$0.1588^{*} = 0.0788 + 0.080$

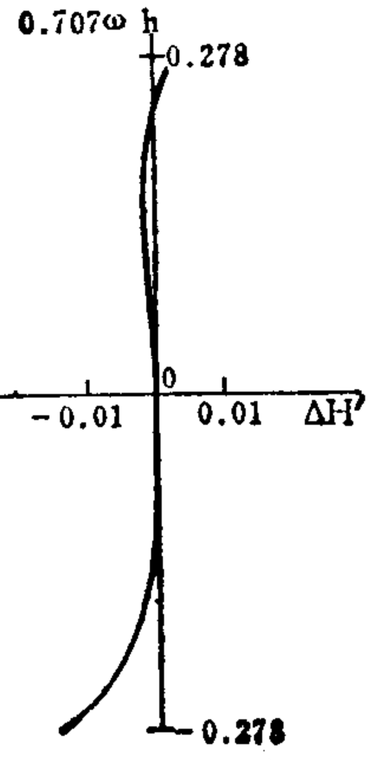
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00262	0.00042	0.00032	−0.00337	−0.00703	0.62	−1.3%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K'_{T1}	$K'_{T0.7}$
100	0.0028	−0.0083	−0.0096	0.0012	−0.0108	−0.03029	−0.00813
70	−0.0043	−0.0046	−0.0041	−0.0067	0.0026	−0.00530	−0.00173







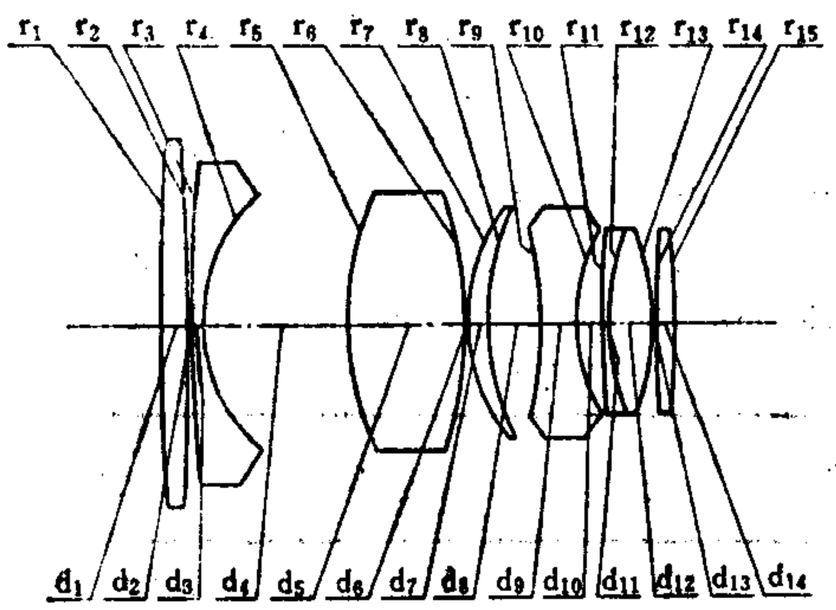




编号：06-00-019

大孔径广角摄影物镜

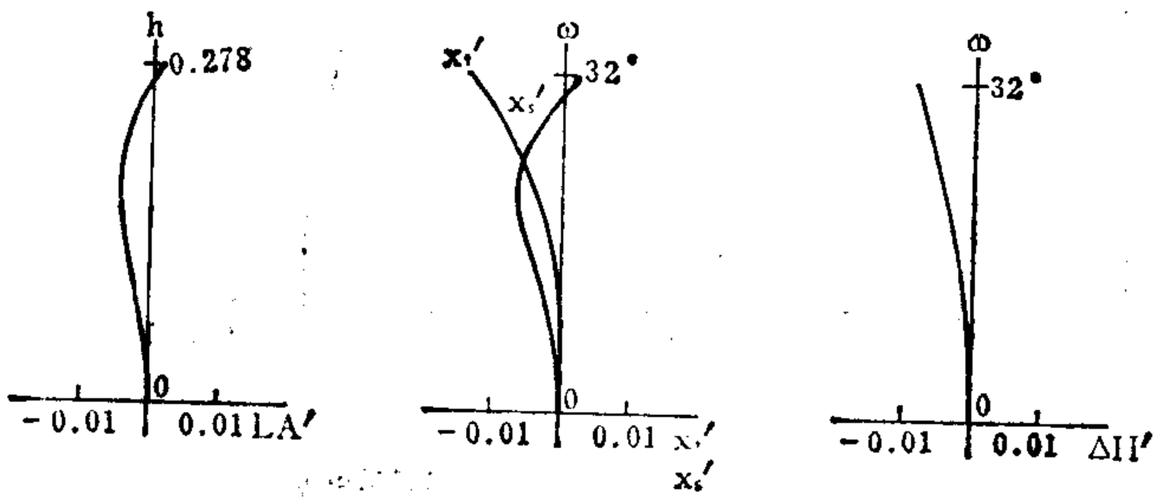
E.F.L＝1　　B.F.L＝1.05　　FNo.＝1.8　　F.A.＝±32°



序号	r	d	n	ν	序号	r	d	n	ν
1	14.4930	0.0970	1.6935	50.3	9	− 1.4903	0.1280*	1.6477	33.9
2	−10.3210	0.0060			10	0.6940	0.0900		
3	6.7454	0.0413	1.6935	53.4	11	4.8548	0.0300	1.7557	27.2
4	0.6324	0.5271			12	0.9445	0.1584	1.7080	53.3
5	1.1597	0.4273	1.6968	55.6	13	− 0.9516	0.0050		
6	− 1.5503	0.0050			14	7.1450	0.0720	1.7080	53.3
7	0.7152	0.0793	1.7170	47.9	15	− 4.0188			
8	1.1463	0.1830							

$0.1280^{*} = 0.0600 + 0.0680$

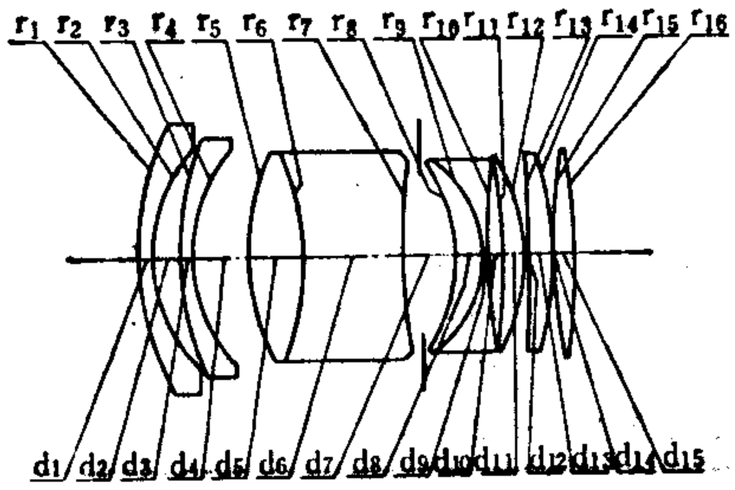
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.00261	− 0.00087	0.00054	− 0.00343	− 0.00677	0.62	− 1.3%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.0013	− 0.0083	− 0.0139	0.0025	− 0.0164	0.00755	− 0.00145
70	− 0.0043	− 0.0044	− 0.0044	− 0.0063	0.0019	0.01333	0.00009



编号：06-00-020

长后截距大孔径广角摄影物镜

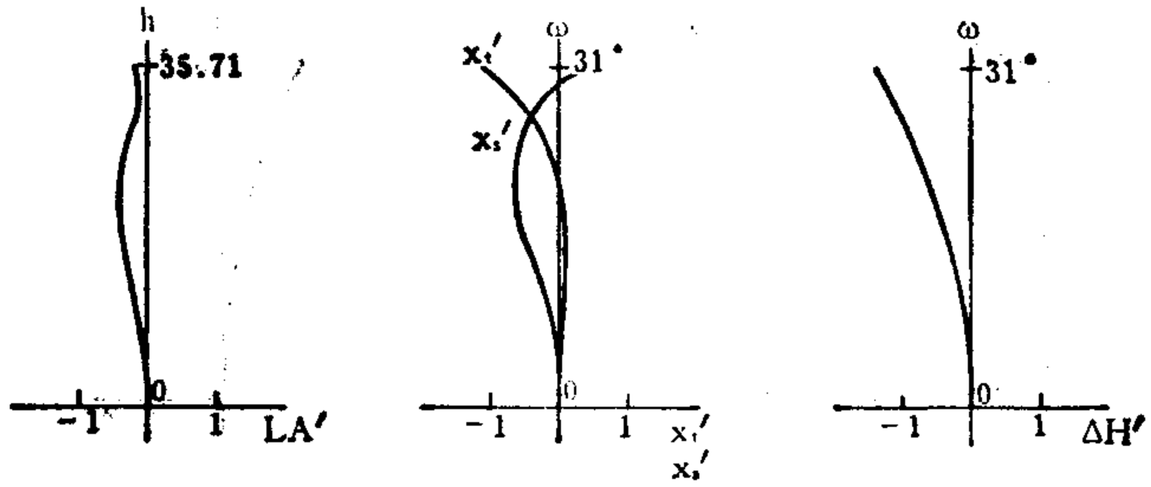
E.F.L＝100　　B.F.L＝106.44　　FNo.＝1.4　　F.A.＝±31°

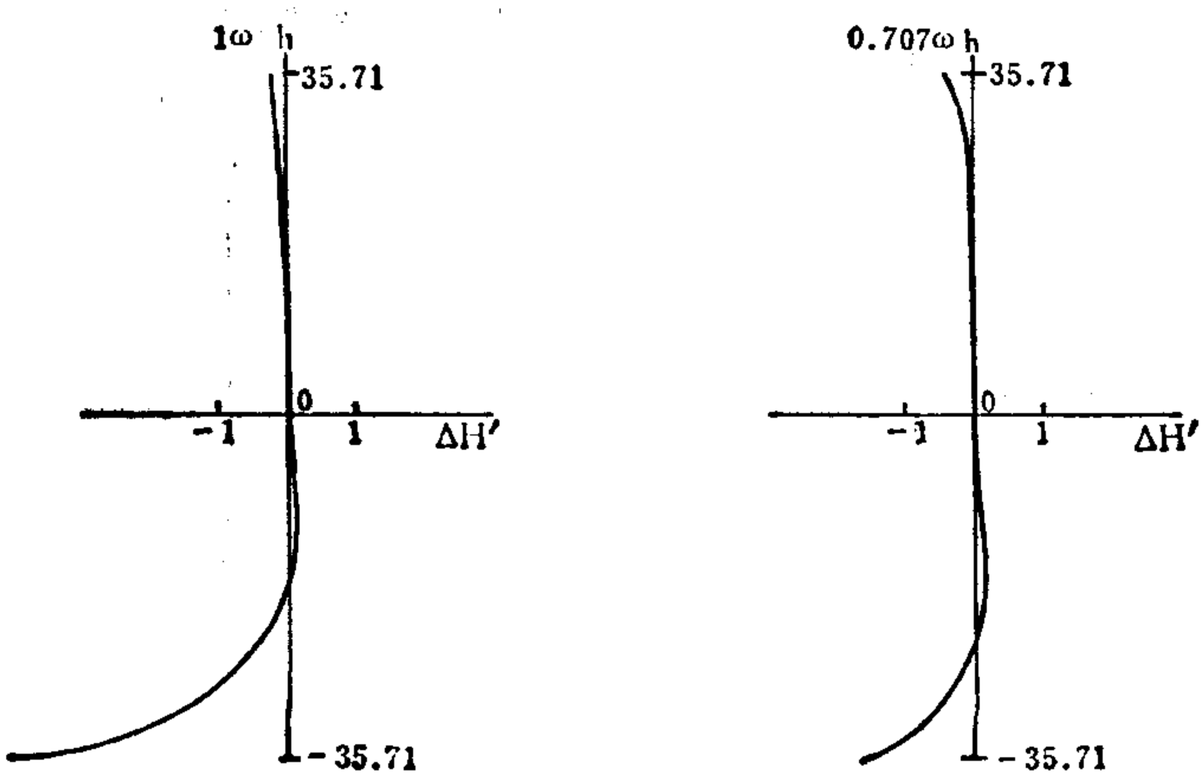


序号	r	d	n	v	序号	r	d	n	v
1	129.722	5.833	1.66883	56.0	9	－52.778	2.778	1.78470	26.1
2	71.111	12.222			10	515.056	4.722		
3	138.889	5.833	1.54814	45.9	11	－314.667	11.111	1.77250	49.5
4	73.333	24.444			12	－87.500	0.139		
5	107.778	23.611	1.80411	46.4	13	－2777.778	10.556	1.77250	49.5
6	－116.667	44.444	1.50137	56.5	14	－151.250	0.139		
7	432.031	22.222*			15	291.669	9.444	1.71300	53.9
8	－74.194	12.222	1.80411	46.4	16	－304.097			

$22.222^{*} = 7.400 + 14.822$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	－0.0013	0.2043	0.1882	－0.7128	－1.2097	60.08	－2.3%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	－0.198	－1.400	－1.146	0.365	－1.511	－2.155	－0.322
70	－0.396	－0.648	－0.061	－0.638	0.577	－1.015	－0.068

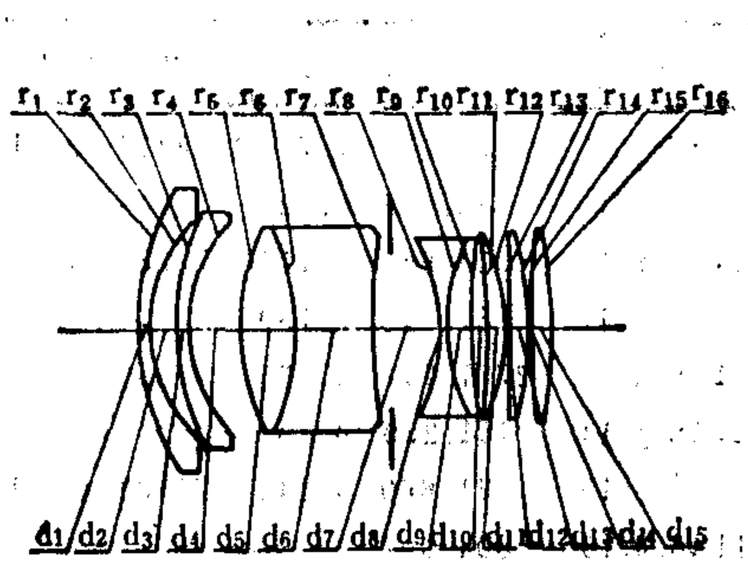




编号：06-00-021

长后截距大孔径广角摄影物镜

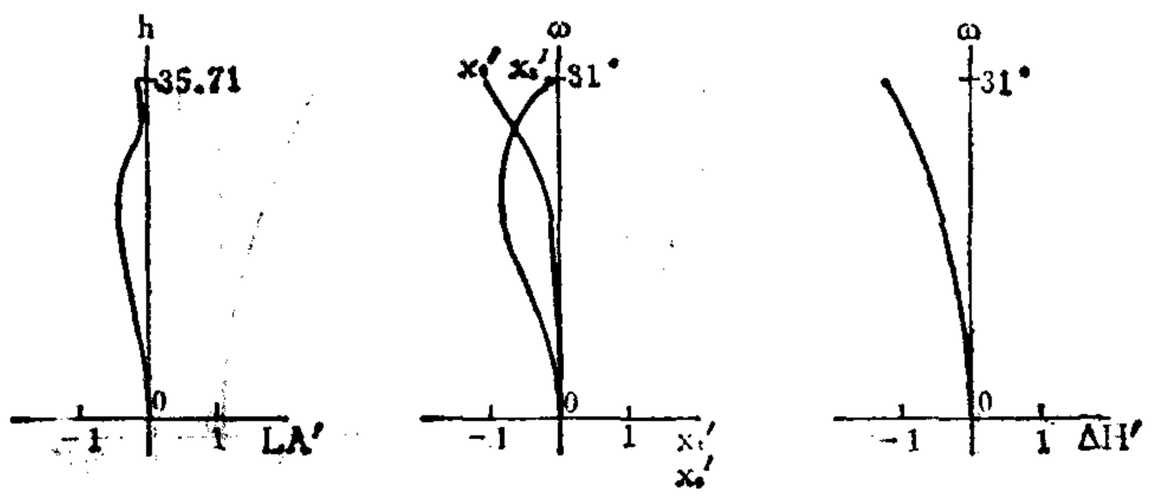
E.F.L＝100　　B.F.L＝106.61　　FNo.＝1.4　　F.A.＝±31°

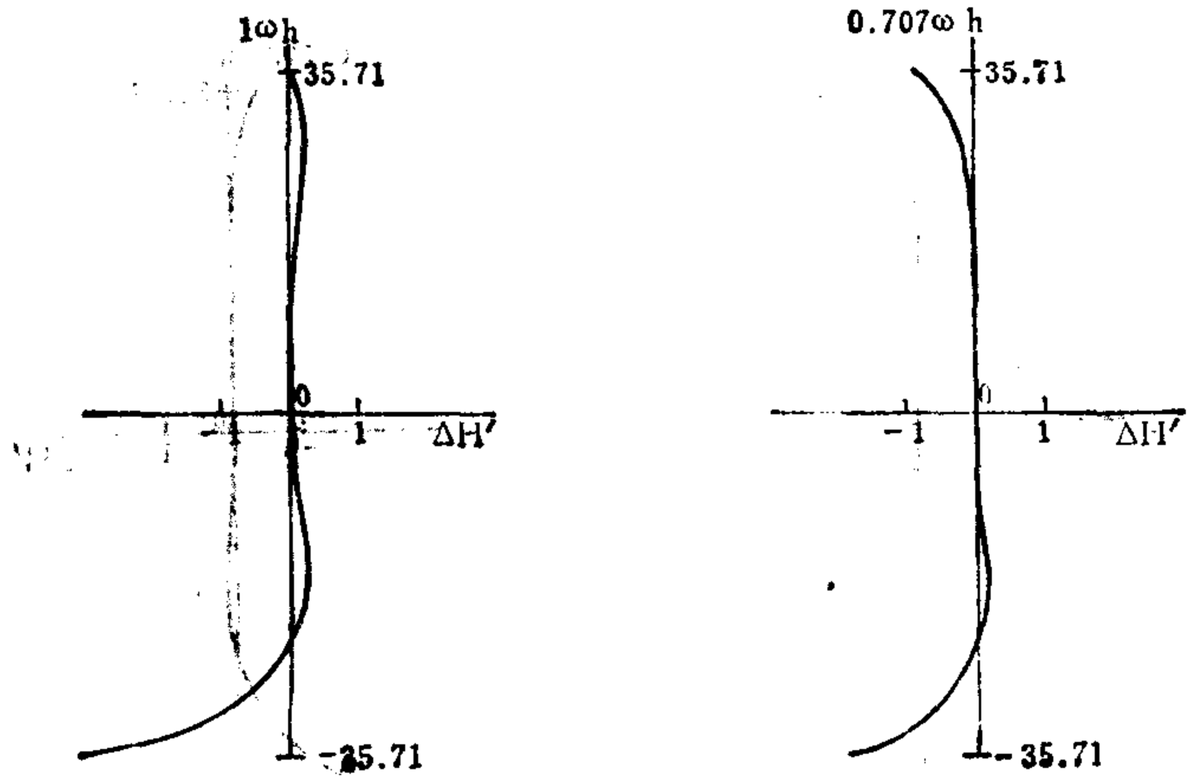


序号	r	d	n	v	序号	r	d	n	v
1	123.525	5.556	1.56384	60.8	9	91.667	11.111	1.80411	46.4
2	67.722	11.667			10	361.111	5.000		
3	123.525	5.556	1.55823	67.7	11	−389.028	9.444	1.76684	46.2
4	69.778	22.222			12	−94.444	0.278		
5	108.333	23.611	1.80411	46.4	13	1864.453	9.444	1.74443	49.4
6	−105.167	34.722	1.51118	50.9	14	−154.087	0.278		
7	333.333	28.889*			15	472.222	8.333	1.74443	49.4
8	−83.333	3.889	1.78470	26.1	16	−226.909			

28.889* = 7.220 + 21.669

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.5941	0.1520	0.1866	−0.7780	−1.1838	60.94	−2.05%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.159	−1.234	−1.113	−0.043	−1.070	−1.544	0.047
70	−0.429	−0.615	−0.242	−0.832	0.590	−1.351	−0.063

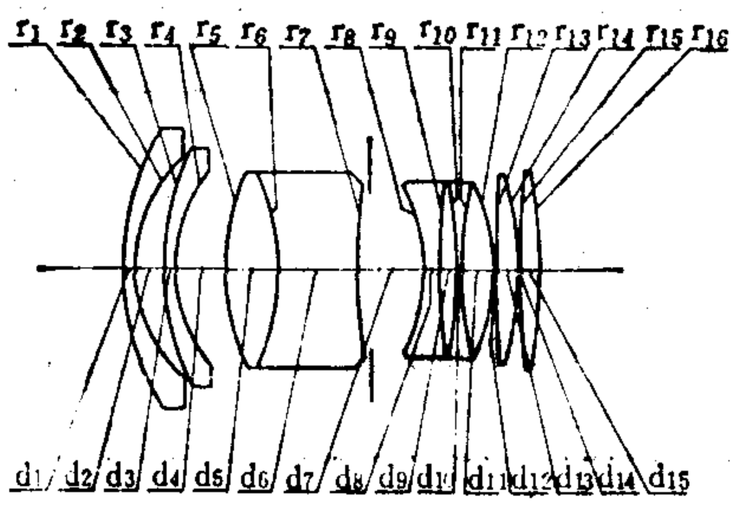




编号：06-00-022

长后截距大孔径广角摄影物镜

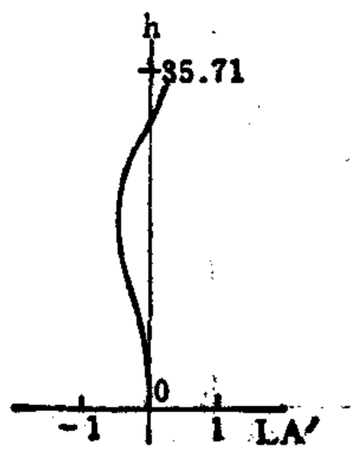
E.F.L＝100　　B.F.L＝107.77　　FNo.＝1.4　　F.A.＝±31°

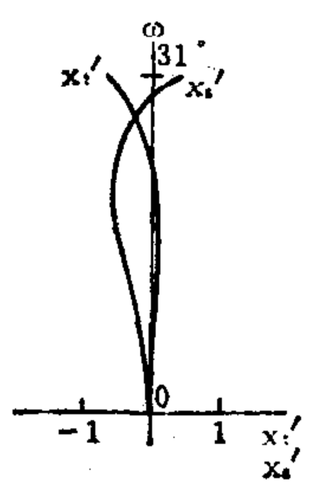


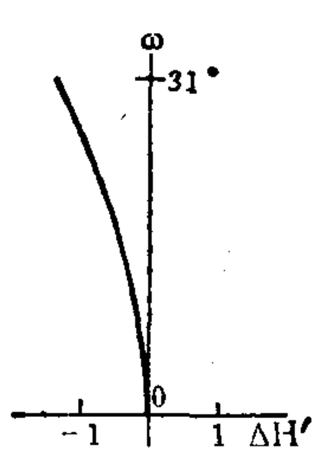
序号	r	d	n	ν	序号	r	d	n	ν
1	123.611	5.556	1.56883	56.0	9	388.889	5.000		
2	67.722	11.667			10	−361.111	2.778	1.78470	26.1
3	123.611	5.556	1.54814	45.9	11	166.667	15.000	1.76684	46.2
4	69.778	22.222			12	−93.056	0.278		
5	108.333	23.611	1.80411	46.4	13	1861.111	9.444	1.74443	49.4
6	−106.944	34.722	1.50137	56.5	14	−154.167	0.278		
7	333.333	28.889*			15	444.444	8.333	1.74443	49.4
8	−83.889	7.778	1.78470	26.1	16	−267.586			

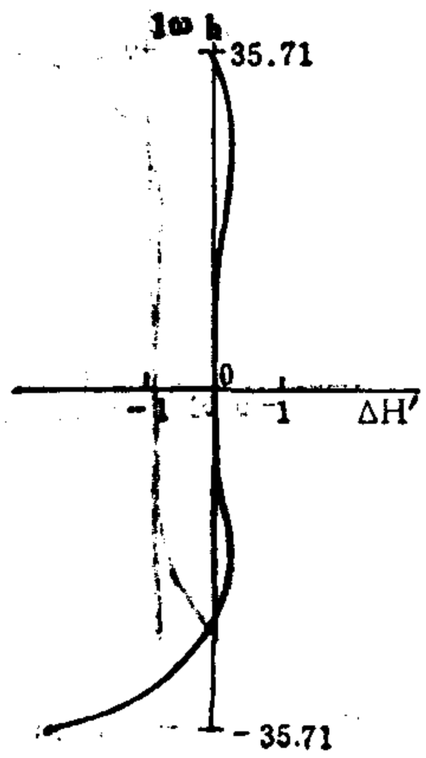
$28.889^{*} = 4.500 + 24.389$

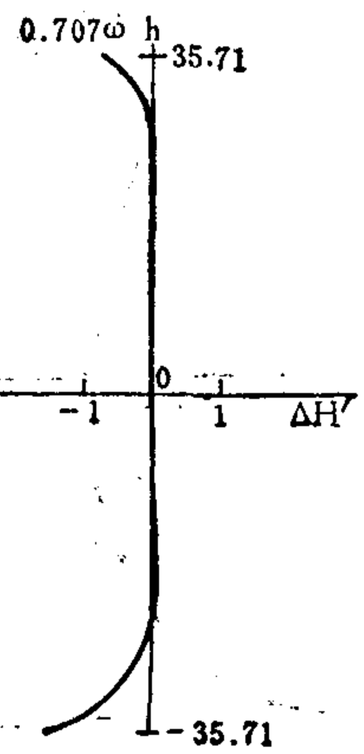
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.6152	0.1341	0.2254	−0.7171	−1.2587	60.08	−2.3%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K'_{T1}	$K'_{T0.7}$
100	0.256	−1.404	−0.681	0.414	−1.095	−1.180	0.097
70	−0.413	−0.659	0.048	−0.613	0.661	−1.152	−0.033







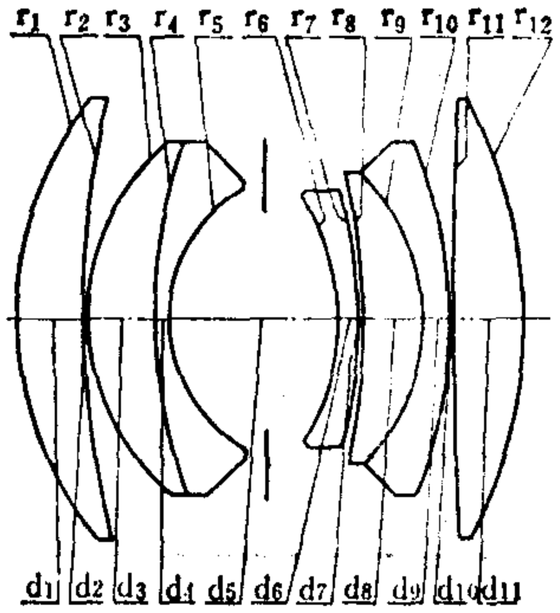




编号：06-00-023

大孔径广角摄影物镜

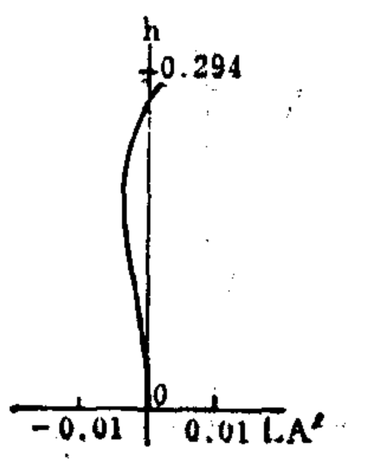
E.F.L＝1　　B.F.L＝0.5844　　FNo.＝1.7　　F.A.＝±32°

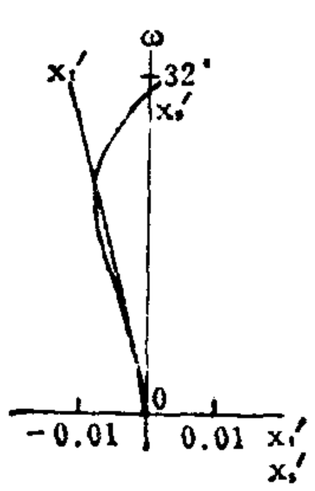


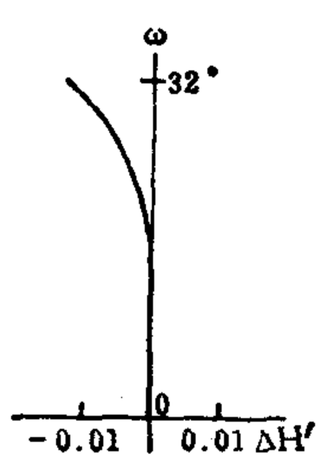
序号	r	d	n	v	序号	r	d	n	v
1	0.534520	0.09866	1.63854	55.5	7	−0.767400	0.00560		
2	1.448190	0.00280			8	−1.118060	0.091300	1.71300	53.9
3	0.349130	0.10430	1.71300	53.9	9	−0.313840	0.033860	1.58144	40.8
4	0.809375	0.02030	1.62588	35.6	10	−0.714750	0.005600		
5	0.228206	0.24660*			11	13.028250	0.112700	1.69680	55.6
6	−0.349690	0.02900	1.63980	34.6	12	−0.710130			

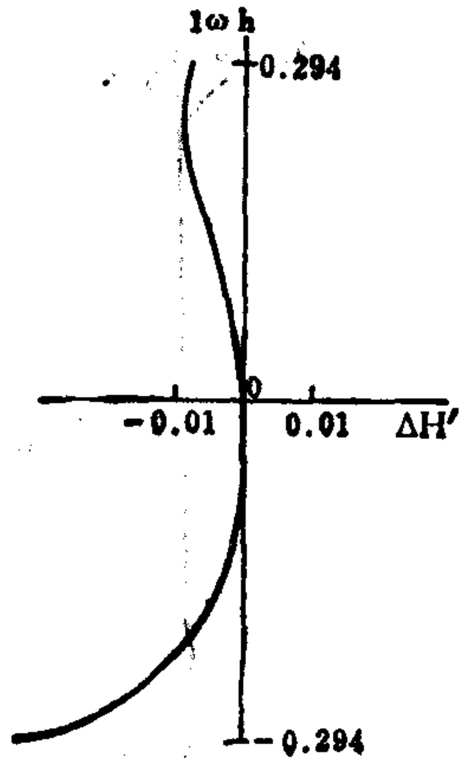
0.24660* = 0.14000 + 0.10660

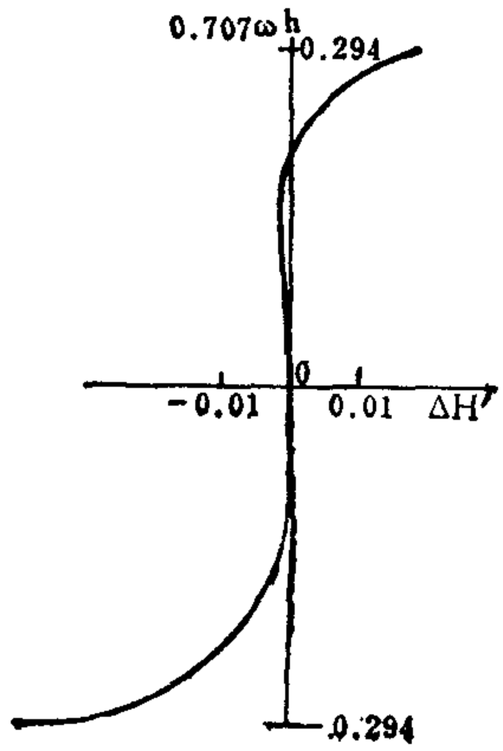
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00246	0.00001	0.00054	−0.00548	−0.00013	0.62	−2%
h 或 ω %	LA′	ΔH′	x_t	x_s'	$x_t'-x_s'$	K'_{T1}	$K'_{T0.7}$
100	0.00298	−0.0128	−0.0121	0.0023	−0.0144	−0.0199	−0.0074
70	−0.00356	−0.0021	−0.0075	−0.0082	0.0007	−0.0103	−0.0032







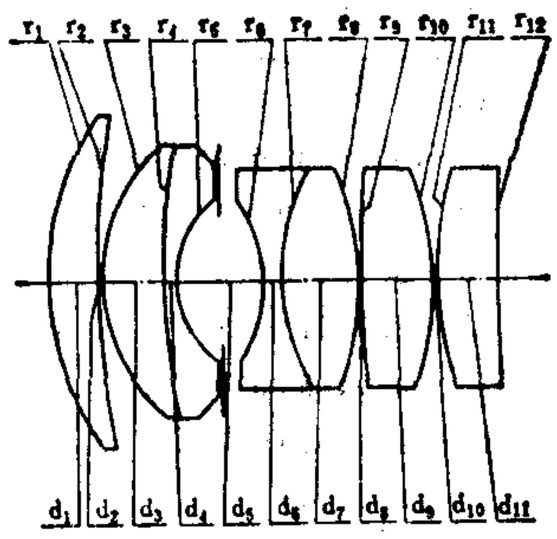




编号：06-00-024

大孔径投影镜头

E.F.L＝1　　B.F.L＝0.4056　　FNo.＝1.1　　F.A.＝±9°

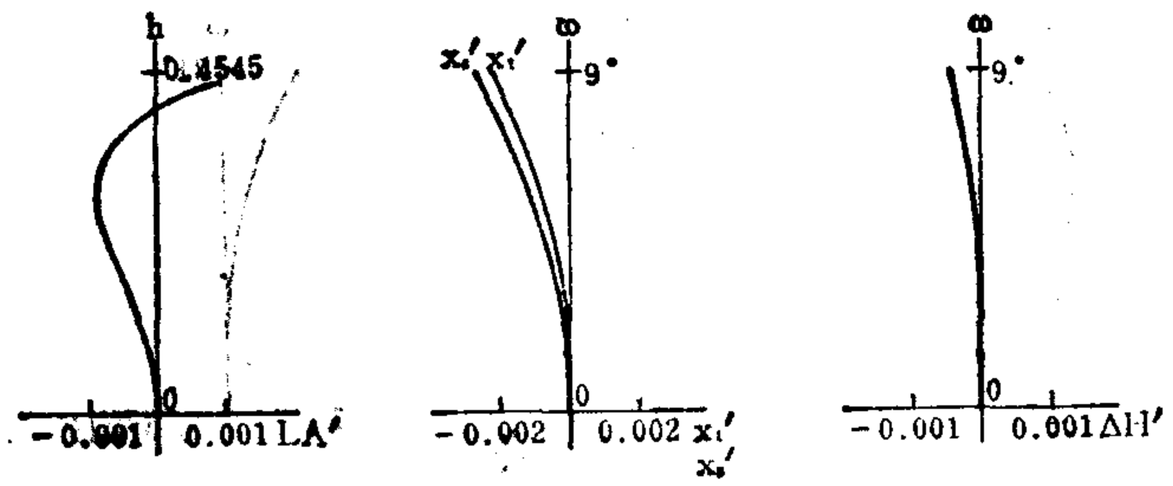


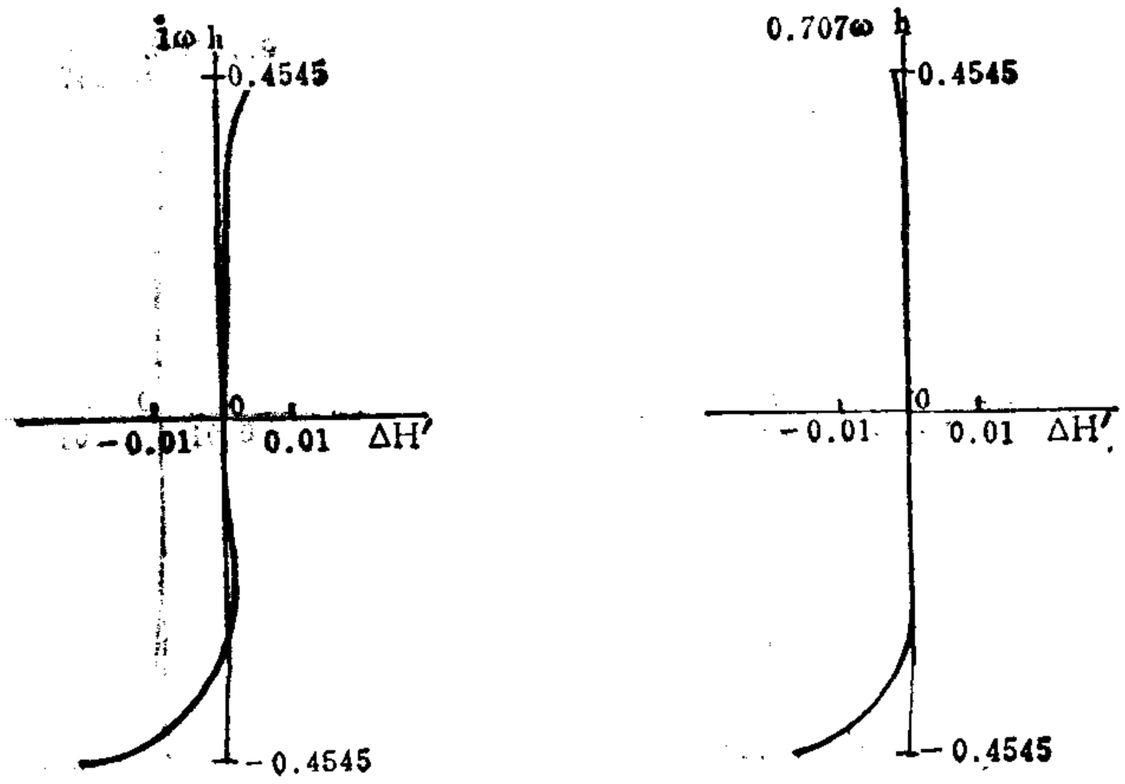
序号	r	d	n	ν	序号	r	d	n	ν
1	0.8582	0.1495	1.75700	47.8	7	0.6682	0.2241	1.71300	53.9
2	4.3432	0.0091			8	−0.8880	0.0091		
3	0.5414	0.1959	1.74320	49.3	9	4.0227	0.2136	1.77252	49.5
4	2.0545	0.0341	1.63980	34.4	10	−0.9436	0.0091		
5	0.3077	0.2536*			11	1.0961	0.1818	1.80610	40.8
6	−0.4316	0.0586	1.72825	28.5	12	4.6789			

0.2536* = 0.1267 + 0.1269

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00157	0.00062	0.00017	−0.00137	−0.00043	0.16	−0.28%
h 或 ω%	LA′	ΔH′	x'_t	x'_s	$x'_t - x'_s$	K'_{T1}	$K'_{T0.7}$
100	0.00144	−0.00045	−0.00225	−0.00273	0.00048	−0.00864	0.00004
70	−0.00083	−0.00016	−0.00106	−0.00141	0.00035	−0.00818	−0.00025

注：以上是在 l ＝ −∞时计算的象差值。

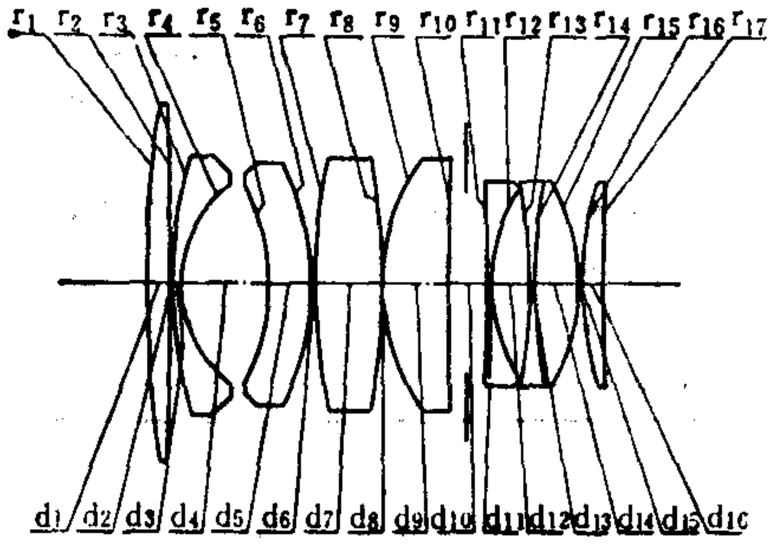




编号：06-00-025

反远距型大孔径广角物镜

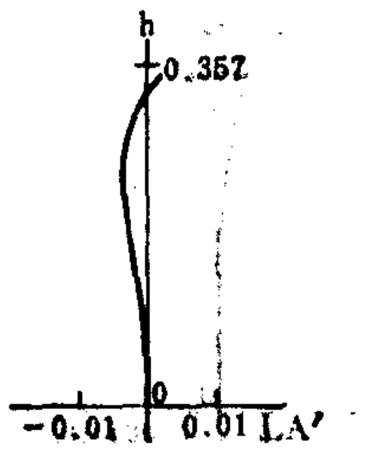
E.F.L＝1　　B.F.L＝1.034　　FNo.＝1.4　　F.A.＝±31°

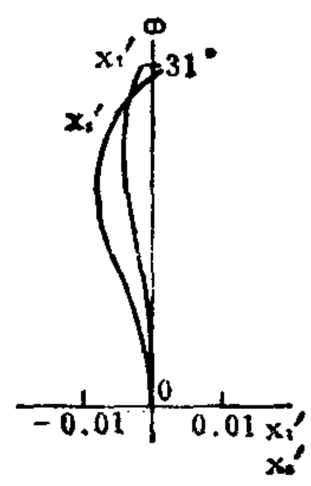


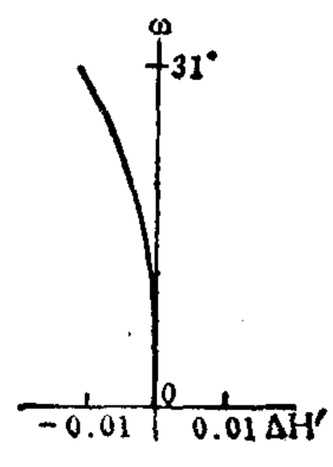
序号	r	d	n	v	序号	r	d	n	v
1	5.61870	0.11111	1.70000	48.0	10	24.64200	0.17401*		
2	−10.96600	0.00417			11	−13.90800	0.02778	1.74077	27.7
3	2.03050	0.04167	1.51633	64.1	12	0.79360	0.15611		
4	0.55659	0.38408			13	−3.18410	0.02778	1.92286	20.9
5	−0.97484	0.19444	1.64769	33.9	14	2.94510	0.20003	1.80610	40.7
6	−1.24160	0.00833			15	−0.94455	0.00278		
7	3.19390	0.29083	1.70000	48.0	16	1.49590	0.09056	1.77252	49.6
8	−5.88260	0.00278			17	13.08600			
9	0.98212	0.29550	1.77252	49.6					

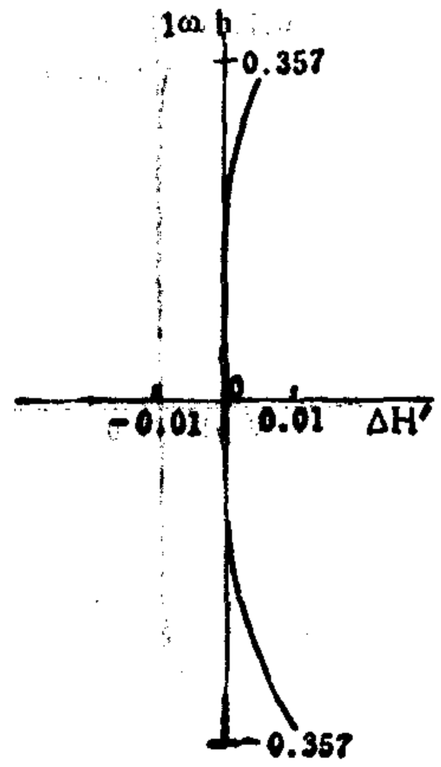
$0.17401^{*} = 0.07700 + 0.09701$

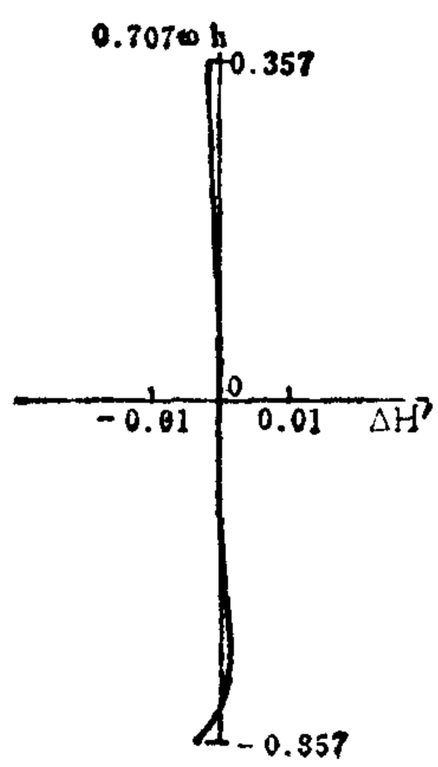
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00321	−0.00060	0.00137	−0.00699	−0.00899	0.6	−1.8%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.00354	−0.0108	−0.00156	0.00196	−0.00352	0.00953	0.00286
70	−0.00349	−0.0048	−0.00357	−0.00779	0.00422	−0.00229	0.00009







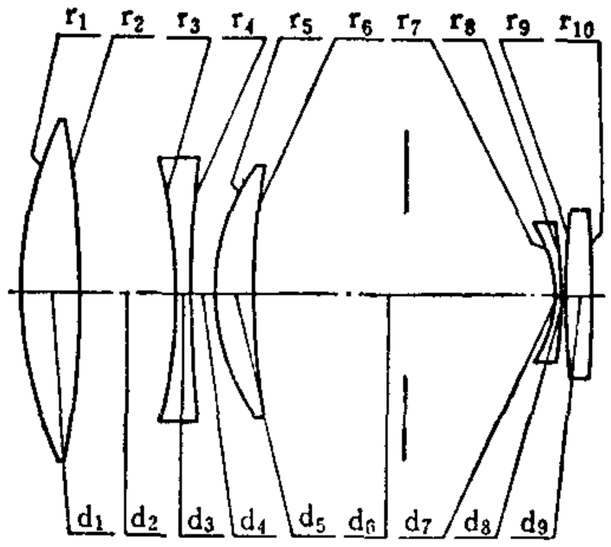




编号：06-00-026

大 孔 径 远 摄 物 镜

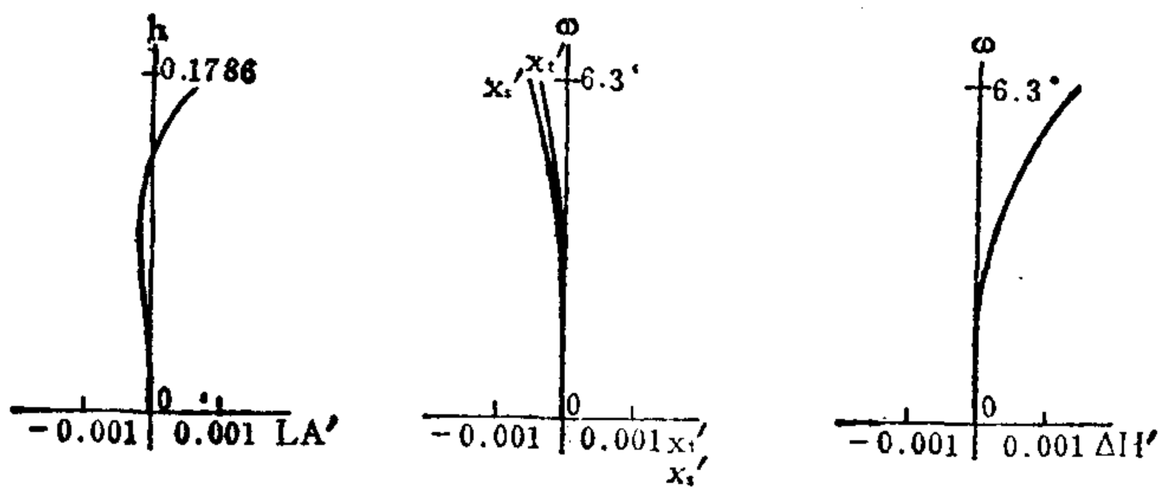
E.F.L＝1.03　　B.F.L＝0.2496　　FNo.＝2.89　　F.A.＝±6.3°

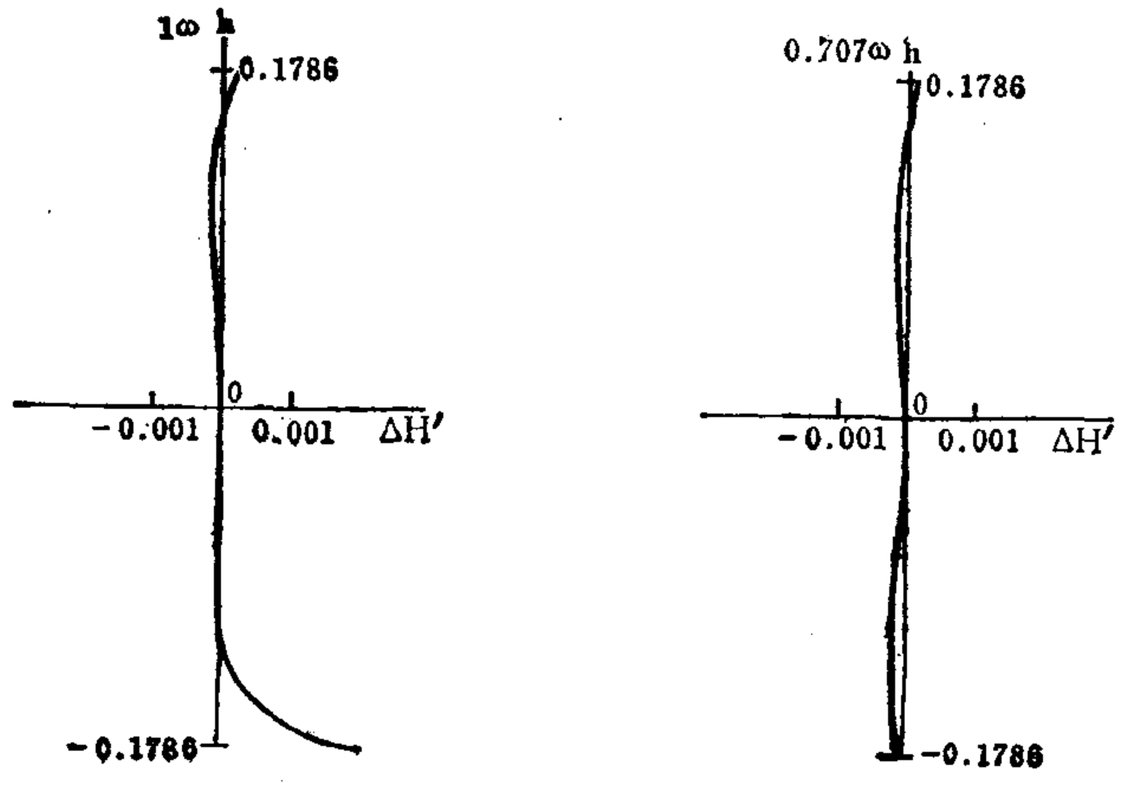


序号	r	d	n	ν	序号	r	d	n	ν
1	0.47453	0.06715	1.49831	65.0	6	1.00213	0.36126*		
2	−1.26695	0.11505			7	−0.15132	0.00769	1.49831	65.0
3	−0.63120	0.01538	1.71736	29.5	8	−0.52896	0.00516		
4	1.86886	0.02993			9	1.00598	0.02960	1.74000	28.3
5	0.26889	0.04681	1.48749	70.1	10	−1.54012			

0.36126* = 0.18000 + 0.18126

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.000066	−0.000043	0.000005	−0.000038	0.000483	0.11	1.2%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.000772	0.00139	−0.000395	−0.000535	0.000140	0.001189	−0.000029
70	−0.000055	0.00049	−0.000159	−0.000272	0.000113	0.000081	−0.000137

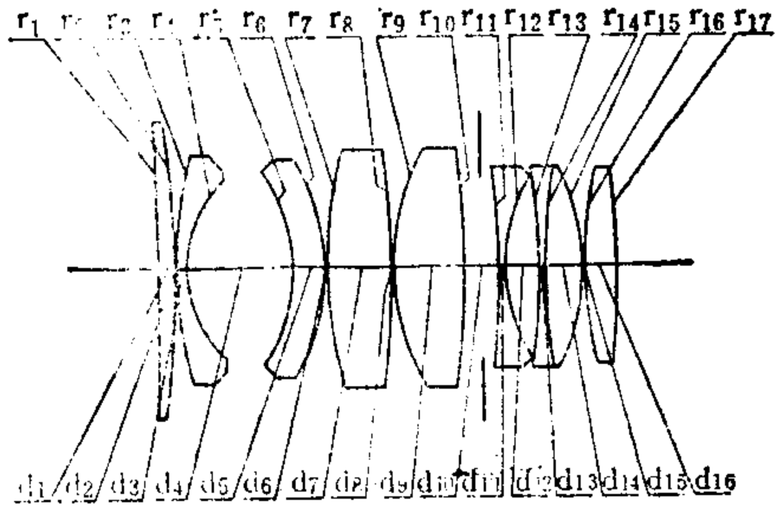




编号：06-00-027

反远距型大孔径广角物镜

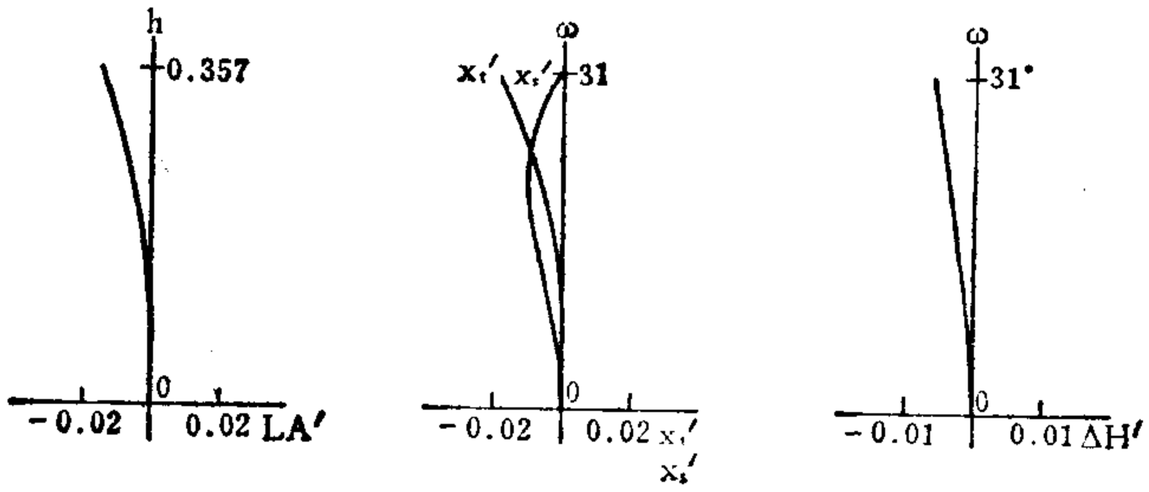
E.F.L＝0.99　　B.F.L＝0.98　　FNo.＝1.4　　F.A.＝±31°



序号	r	d	n	ν	序号	r	d	n	ν
1	−55.1360	0.07111	1.69700	48.5	10	−6.29790	0.15083*		
2	−4.5237	0.00278			11	−4.83560	0.02778	1.76182	26.5
3	1.90340	0.04167	1.51633	64.1	12	0.77069	0.14778		
4	0.55419	0.47306			13	−2.84280	0.02778	1.80518	25.5
5	−0.77459	0.14056	1.70154	41.1	14	2.62530	0.16389	1.77370	49.2
6	−0.96343	0.00278			15	−1.01720	0.00278		
7	2.05200	0.29444	1.70000	48.0	16	1.98460	0.13611	1.80610	40.7
8	−5.75290	0.00278			17	−7.75840			
9	1.08530	0.31528	1.77370	49.2					

$0.15083^{*} = 0.07540 + 0.07543$

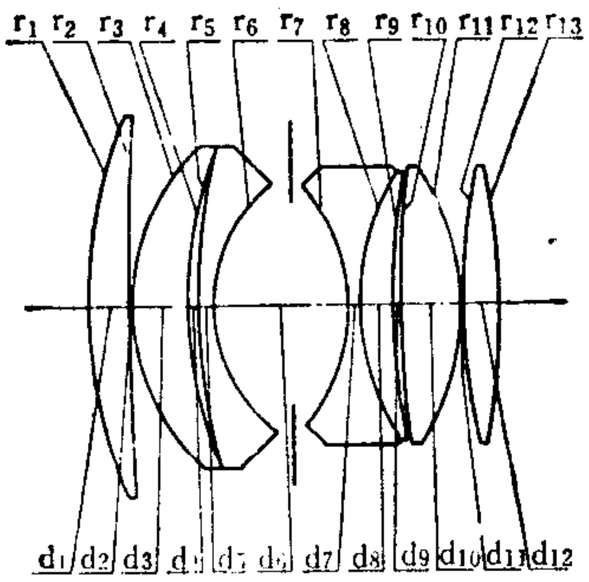
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00439	−0.00109	0.00080	−0.00632	−0.00838	0.59	−0.99%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.0152	−0.0059	−0.0201	−0.0010	−0.0191	0.01327	0.00328
70	−0.0070	−0.0041	−0.0069	−0.0079	0.0010	−0.00687	−0.00108



编号：06-00-028

大孔径摄影物镜

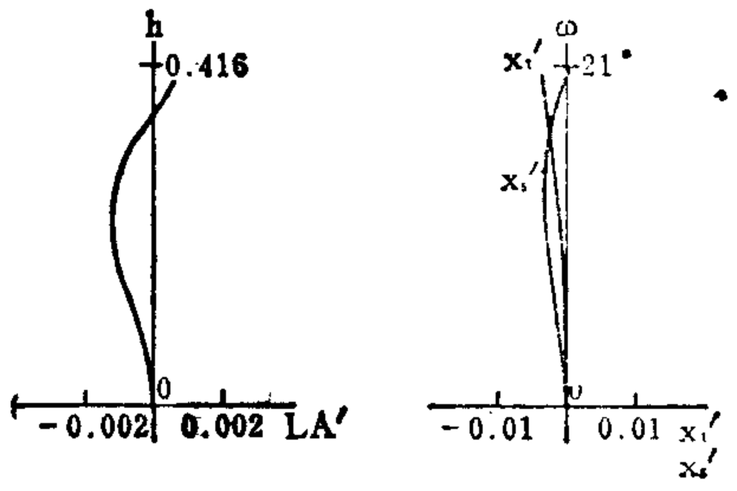
E.F.L＝1　　B.F.L＝0.646　　FNo.＝1.2　　F.A.＝±21°

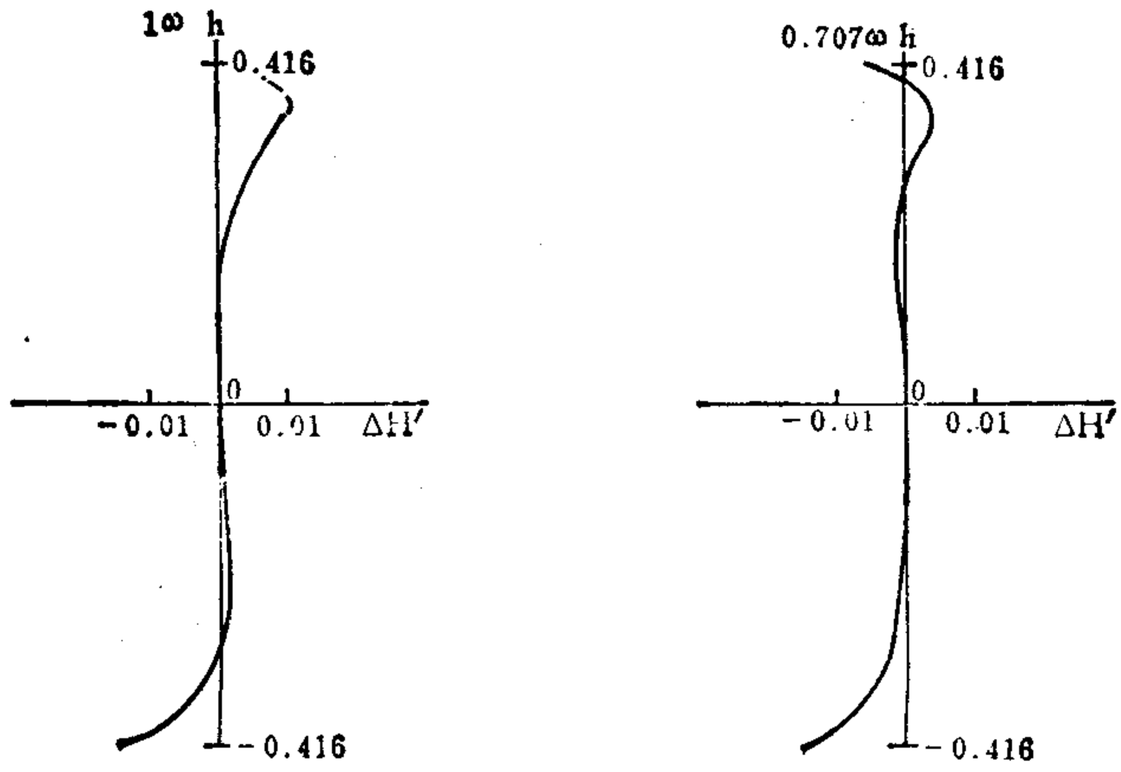


序号	r	d	n	v	序号	r	d	n	v
1	1.1140	0.0920	1.78589	44.2	8	0.5636	0.0300	1.65127	38.2
2	17.1510	0.0018			9	1.7080	0.0161		
3	0.4959	0.1300	1.80439	40.8	10	3.7630	0.1311	1.72915	54.6
4	1.0270	0.0198			11	−0.5708	0.0014		
5	1.4350	0.0350	1.76181	26.5	12	1.3400	0.0760	1.72915	54.6
6	0.3512	0.2978*			13	−1.8210			
7	−0.4180	0.0230	1.59269	35.4					

$0.2978^{*} = 0.1788 + 0.1190$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00253	−0.00062	0.00098	−0.00488	−0.00401	0.38	−1.6%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K'_{T1}	$K'_{T0.7}$
100	0.00084	−0.0060	−0.00377	0.00090	−0.00467	−0.06667	0.00205
70	−0.00116	−0.0020	−0.00254	−0.00339	0.00085	−0.01009	−0.00001

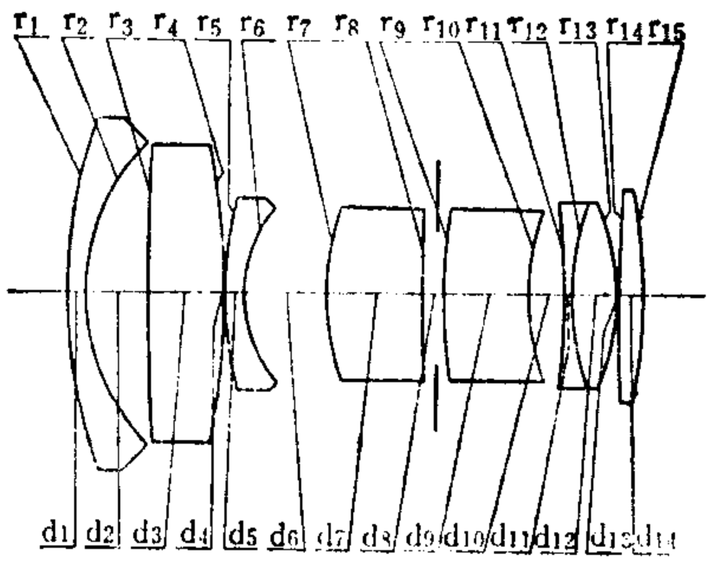




编号：06-00-029

大孔径广角摄影物镜

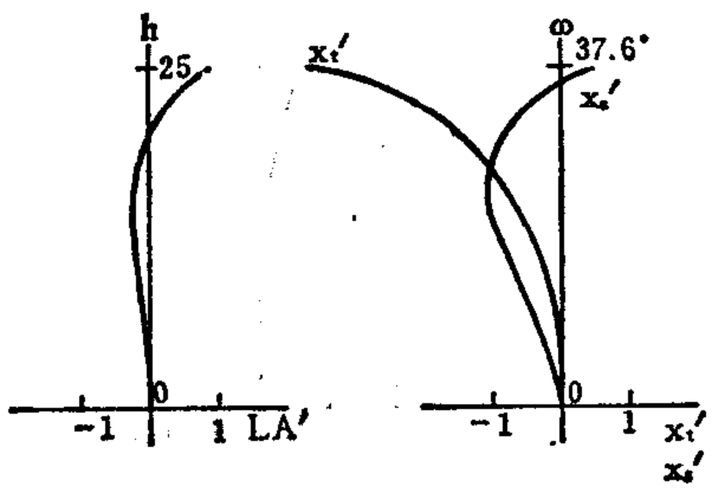
E.F.L＝100　　B.F.L＝137.5　　FNo.＝2　　F.A.＝±37.6°

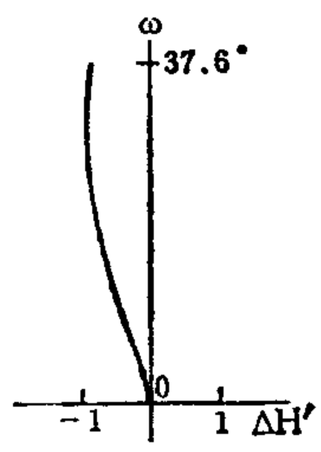


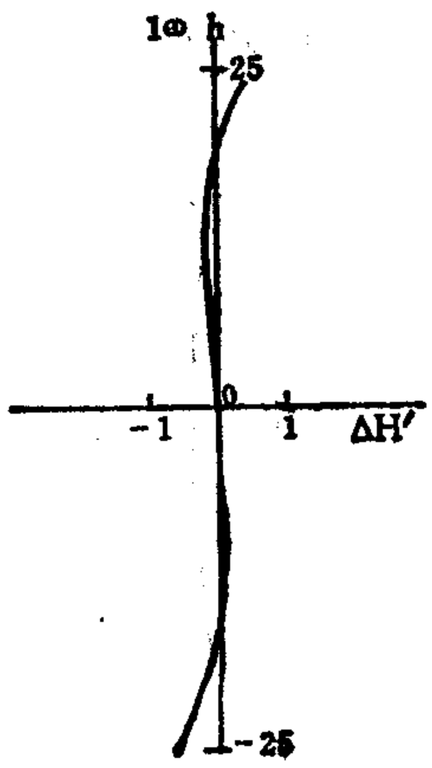
序号	r	d	n	ν	序号	r	d	n	ν
1	231.5	8.0	1.64000	60.2	9	270.2	38.1	1.80518	25.4
2	95.8	26.9			10	109.6	15.5		
3	974.8	34.5	1.80610	40.8	11	−382.9	4.2	1.80518	25.4
4	−330.0	0.4			12	122.3	19.1	1.80300	46.7
5	202.8	8.5	1.62041	60.3	13	−103.9	0.4		
6	60.2	36.4			14	888.1	10.3	1.80300	46.7
7	118.9	41.7	1.81554	44.5	15	−249.0			
8	7148.9	8.8*							

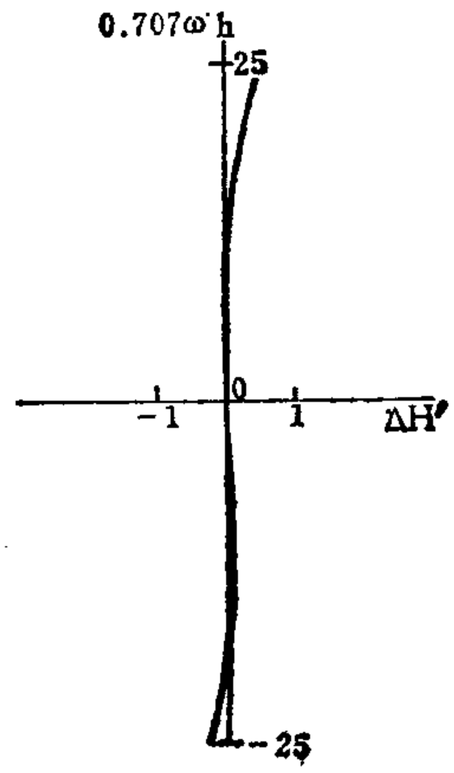
8.8* = 6.0 + 2.8

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.1574	0.0498	0.0623	−0.3844	−1.1080	77.0	−1%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.877	−0.786	−3.691	0.454	−4.145	−0.0564	−0.0425
70	−0.163	−0.804	−0.838	−1.026	0.188	0.1225	0.0795





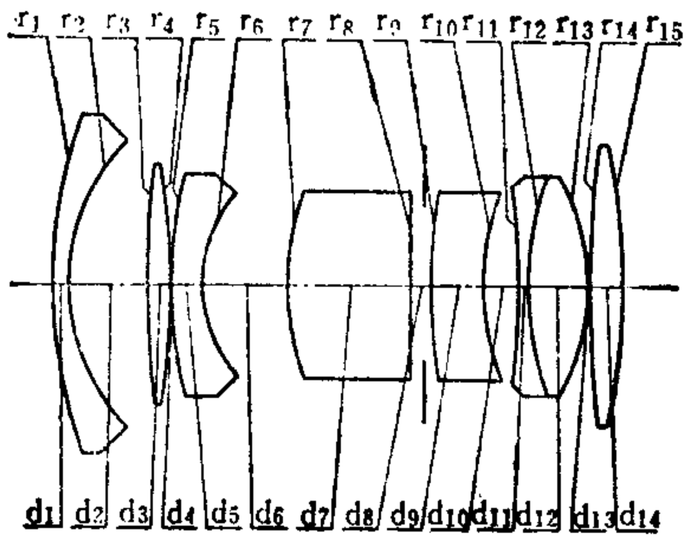




编号：06-00-030

大孔径广角摄影物镜

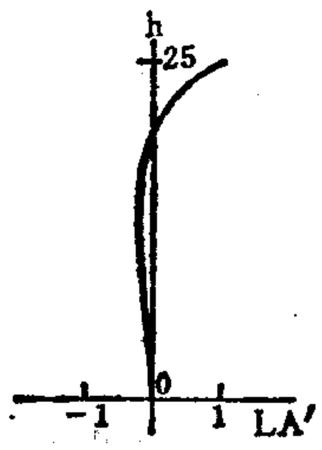
E.F.L＝100　　B.F.L＝136.16　　FNo.＝2　　F.A.＝±37.4°

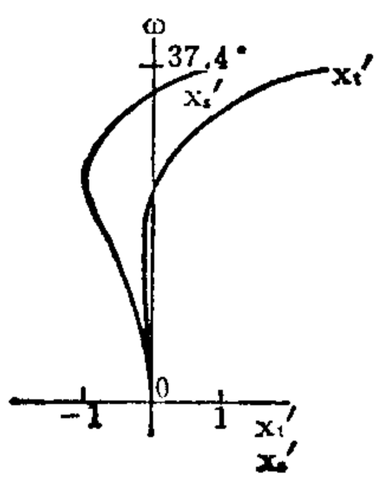


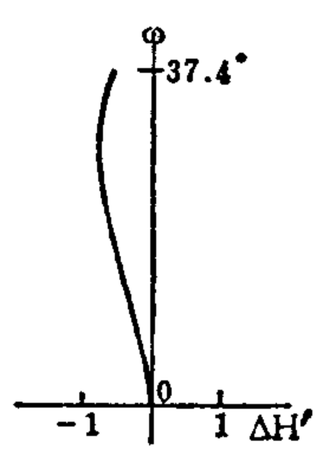
序号	r	d	n	ν	序号	r	d	n	ν
1	228.1	6.9	1.65160	58.6	9	252.6	22.6	1.80518	25.4
2	91.5	34.7			10	113.9	15.7		
3	771.9	9.6	1.80740	35.4	11	－357.9	4.2	1.80518	25.4
4	－334.4	0.4			12	145.6	26.2	1.74100	52.7
5	211.7	14.0	1.54771	62.9	13	－101.2	0.4		
6	60.9	37.6			14	543.8	14.5	1.81554	44.5
7	123.5	54.8	1.78800	47.5	15	－288.3			
8	－3915.5	8.8*							

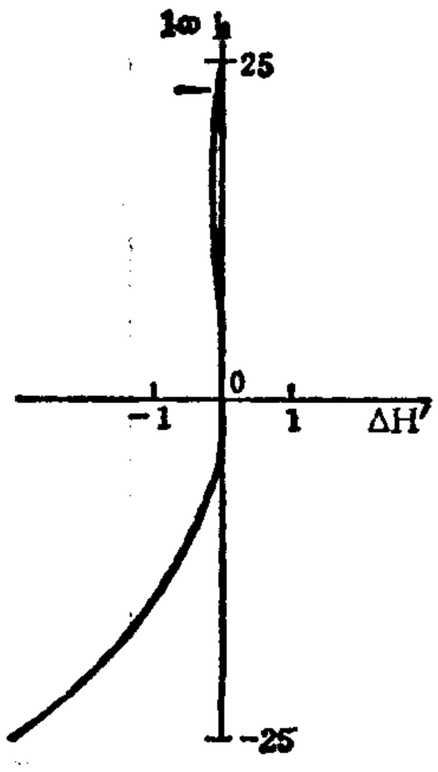
8.8* = 1.0 + 7.8

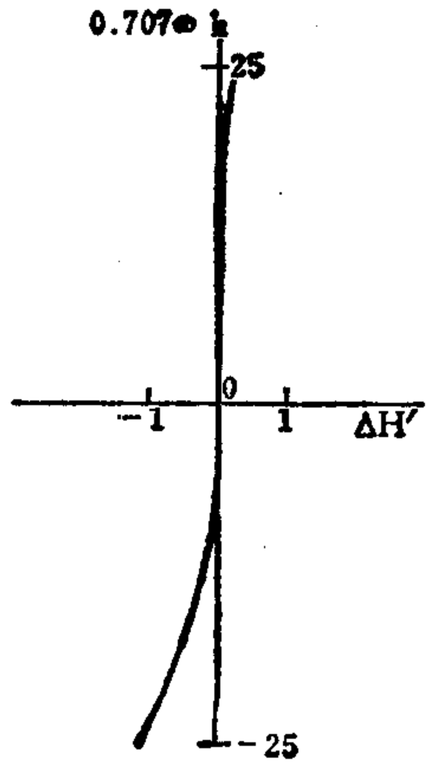
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	－0.1422	－0.0538	0.1397	－0.4442	－1.0918	76.5	－0.7%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.976	－0.548	2.587	0.815	1.772	－1.5005	－0.7428
70	－0.152	－0.765	0.164	－0.986	1.150	－0.4789	－0.2441







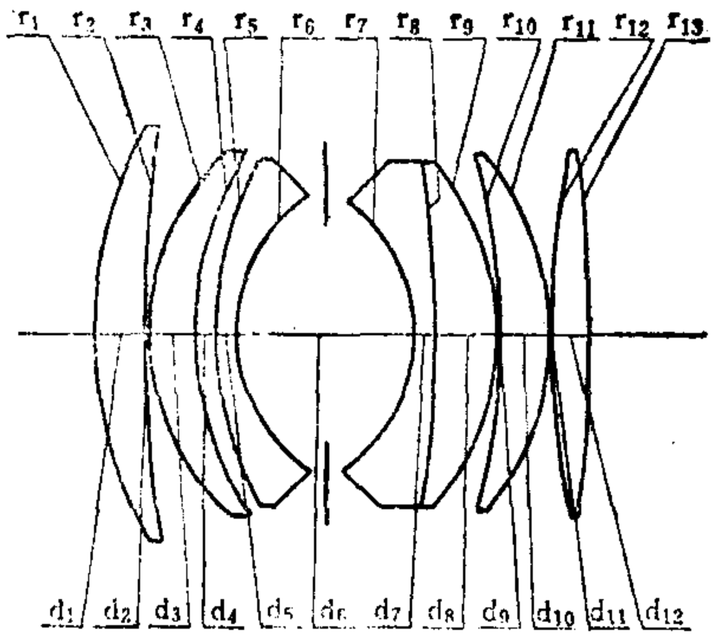




编号：06-00-031

大孔径摄影物镜

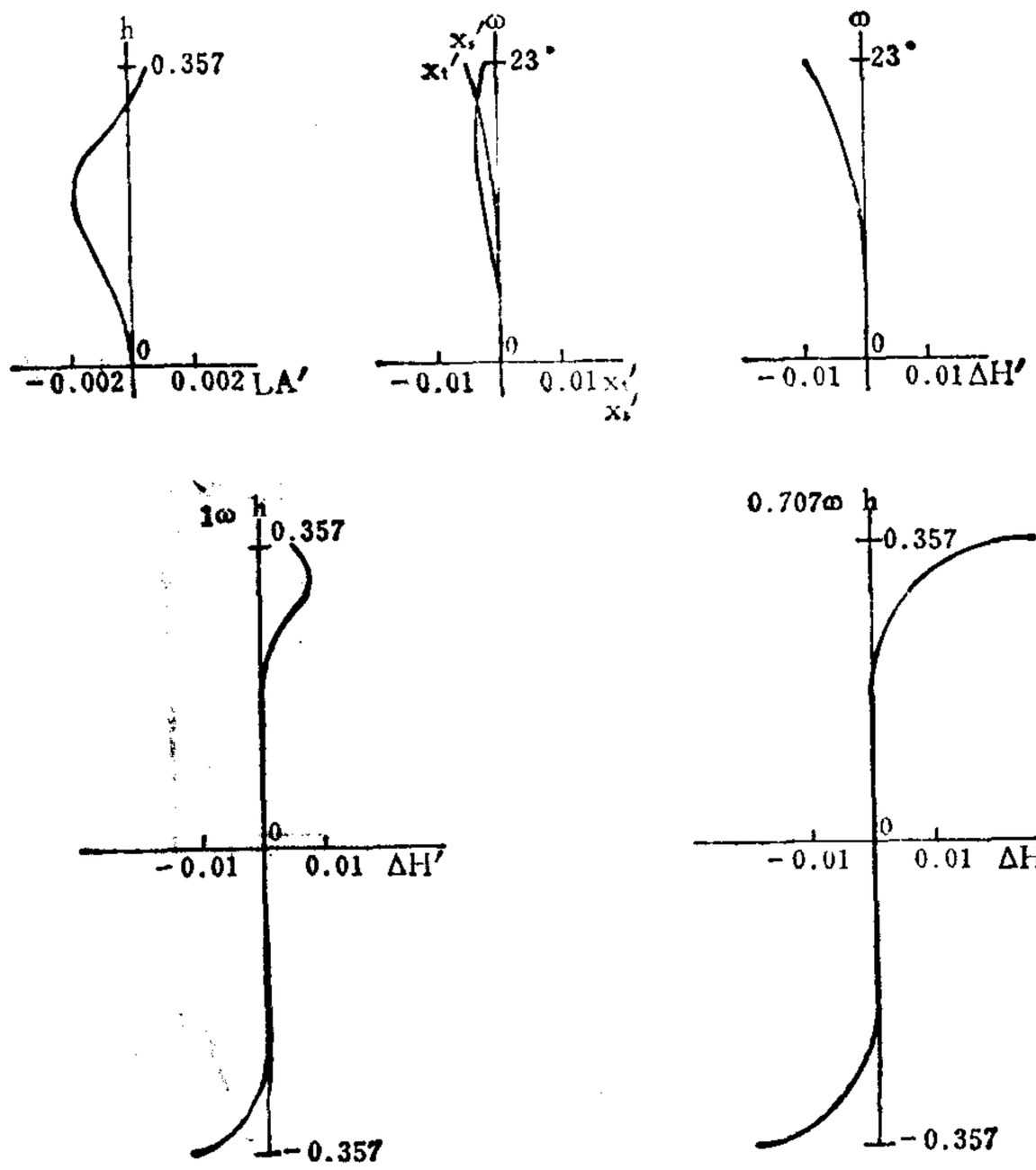
E.F.L＝1　　B.F.L＝0.7403　　FNo.＝1.4　　F.A.＝±23°



序号	r	d	n	v	序号	r	d	n	v
1	0.8005	0.0977	1.8061	40.8	8	−2.1598	0.1110	1.7859	44.2
2	2.7036	0.0019			9	−0.4995	0.0019		
3	0.4551	0.0853	1.7570	47.8	10	−1.2556	0.0975	1.7130	53.9
4	0.6132	0.0386			11	−0.5257	0.0019		
5	0.6710	0.0386	1.7618	27.1	12	1.9726	0.0631	1.7200	50.2
6	0.3039	0.3262*			13	−2.7496			
7	−0.3082	0.0386	1.7618	27.1					

$0.3262^{*} = 0.1631 + 0.1631$

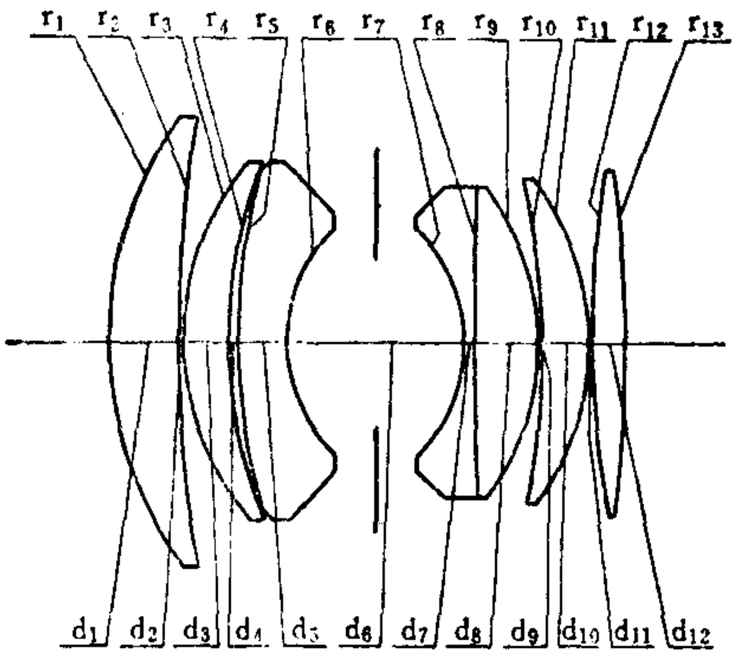
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00281	0.00019	0.00082	−0.00305	−0.00578	0.42	−2%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.00054	−0.0087	−0.00508	−0.00174	−0.00334	0.00764	0.00114
70	−0.00167	−0.0031	−0.00138	−0.00282	0.00144	0.00357	0.00067



编号：06-00-032

长后截距的大孔径物镜

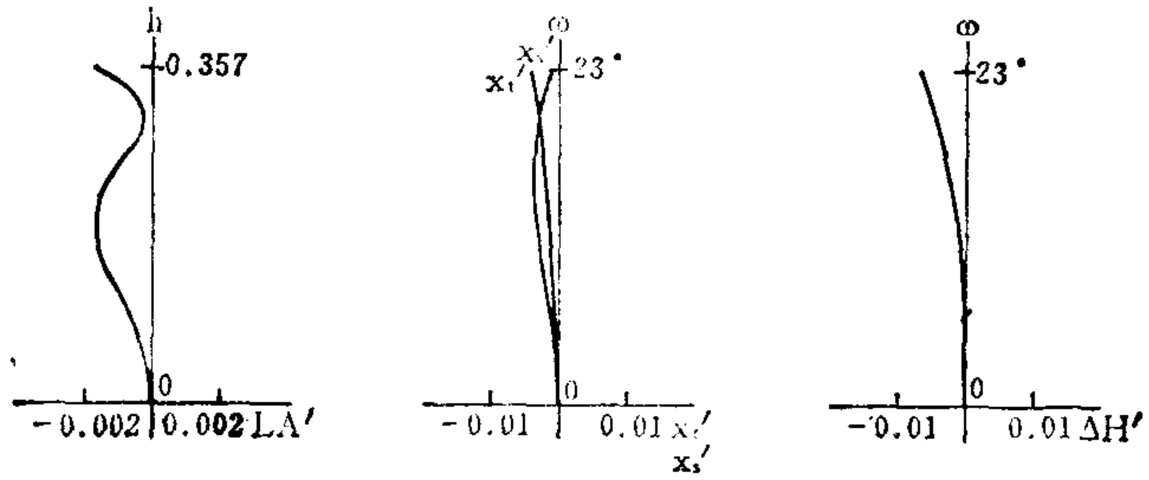
E.F.L＝1　　B.F.L＝0.7098　　FNo.＝1.4　　F.A.＝±23°

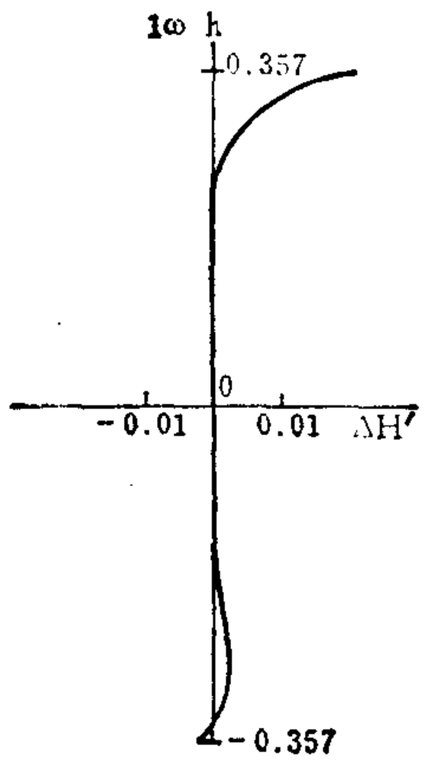


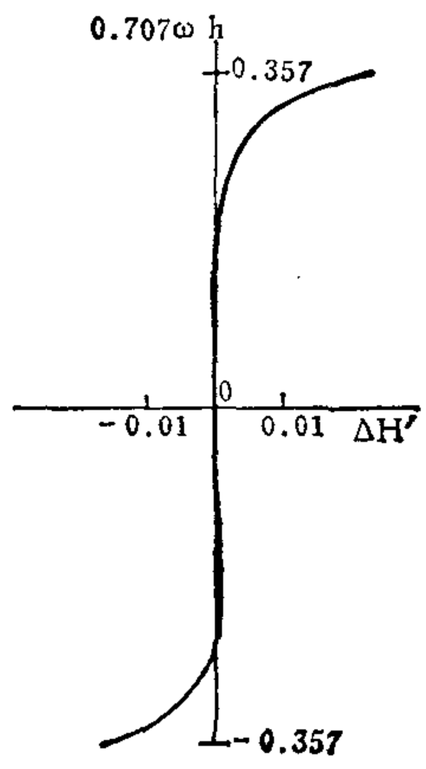
序号	r	d	n	v	序号	r	d	n	v
1	0.7075	0.128	1.62041	60.3	8	14.8000	0.116	1.69350	53.4
2	3.6570	0.003			9	－0.4807	0.005		
3	0.5083	0.087	1.69350	53.4	10	－1.4500	0.089	1.80610	40.7
4	0.8919	0.014			11	－0.5004	0.003		
5	1.1600	0.087	1.58215	42.0	12	2.0800	0.060	1.69350	53.4
6	0.2894	0.326*			13	－2.5945			
7	－0.2924	0.020	1.75520	27.5					

0.326* = 0.163 + 0.163

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	－0.00258	0.00018	0.00050	－0.00284	－0.00468	0.42	－1.5%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K'_{T1}	$K'_{T0.7}$
100	－0.00185	－0.0066	－0.0040	－0.0010	－0.0030	0.00961	0.00112
70	－0.00128	－0.0025	－0.00184	－0.00276	0.00092	0.00333	0.00052



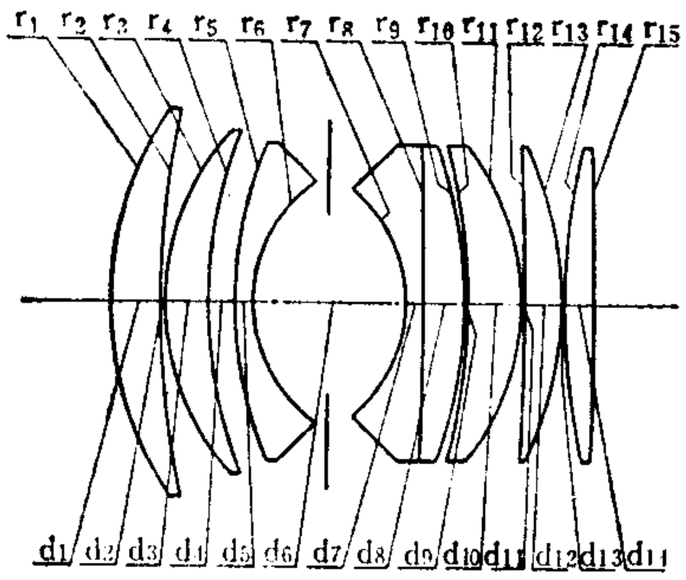




编号：06-00-033

大孔径摄影物镜

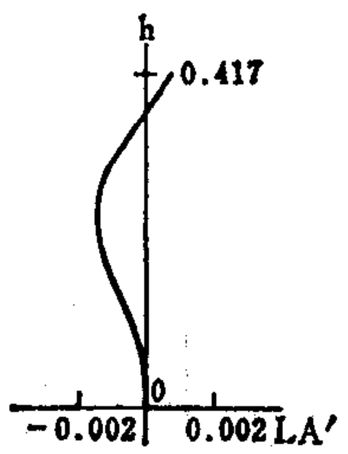
E.F.L＝1　　B.F.L＝0.6976　　FNo.＝1.2　　F.A.＝±21°

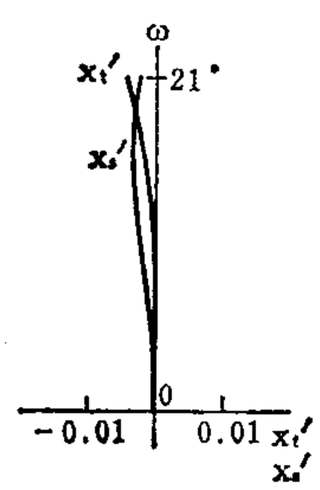


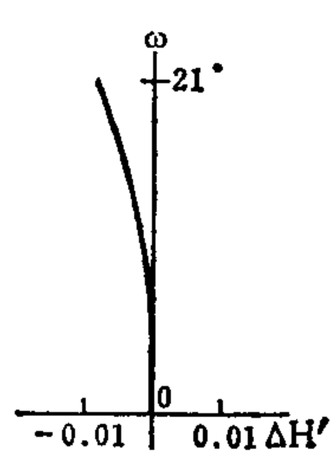
序号	r	d	n	v	序号	r	d	n	v
1	0.7685	0.1181	1.7995	42.3	9	− 1.0272	0.0109		
2	2.4007	0.0018			10	− 1.3390	0.1188	1.7130	53.9
3	0.5664	0.0909	1.8030	46.6	11	− 0.5640	0.0018		
4	0.9682	0.0682			12	− 5.0507	0.0858	1.7130	53.9
5	0.9635	0.0363	1.7618	26.5	13	− 0.8050	0.0018		
6	0.3225	0.3330*			14	1.5356	0.0635	1.7200	50.2
7	− 0.3311	0.0363	1.7283	28.5	15	− 9.4263			
8	− 15.5107	0.0909	1.7570	47.8					

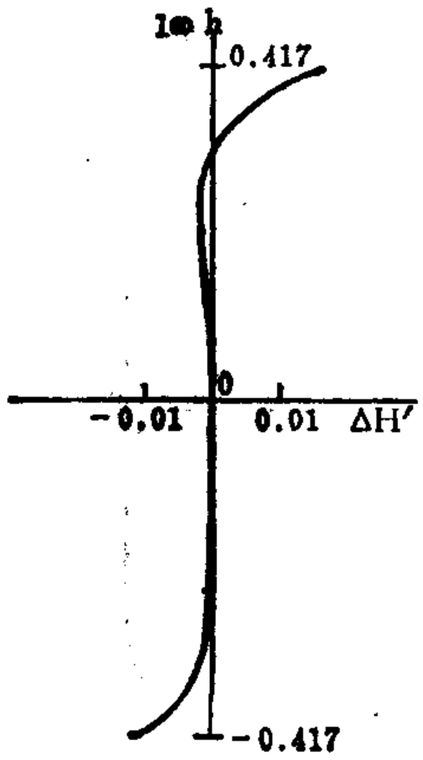
$0.3330^{*} = 0.1665 + 0.1665$

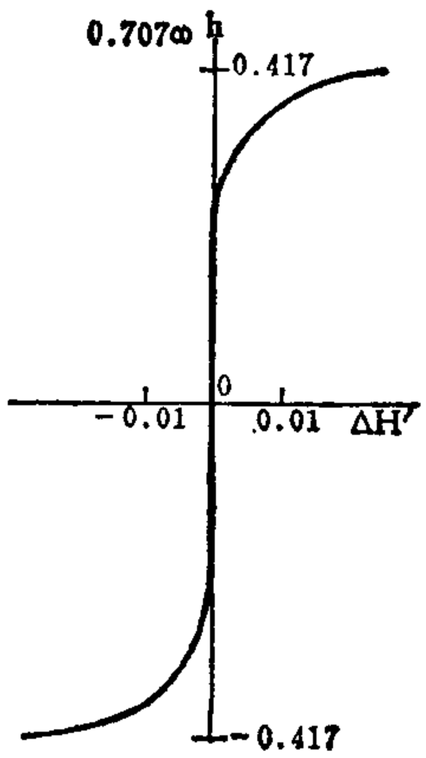
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.00321	0.00101	0.00064	− 0.00340	− 0.00659	0.38	− 2%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.00074	− 0.0077	− 0.00375	− 0.00244	− 0.00131	0.00287	− 0.00051
70	− 0.00135	− 0.0029	− 0.00126	− 0.00255	0.00129	− 0.00151	0.00022







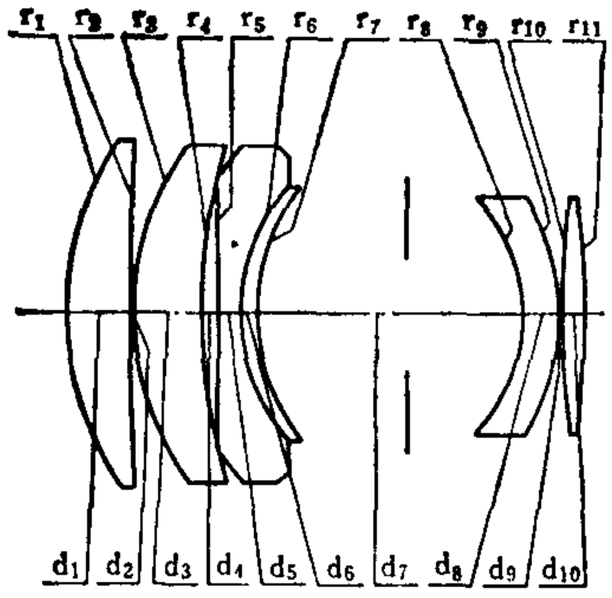




编号：06-00-034

短的大孔径远摄物镜

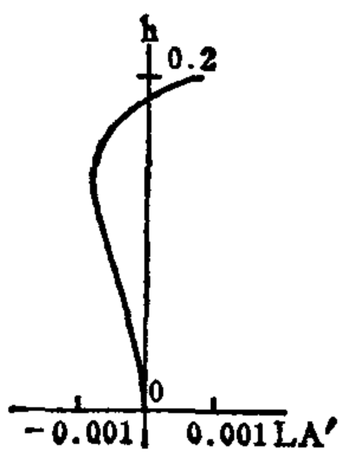
E.F.L＝1　　B.F.L＝0.3567　　FNo.＝2.5　　F.A.＝±9.1°

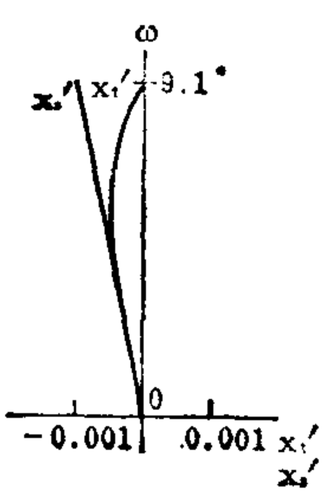


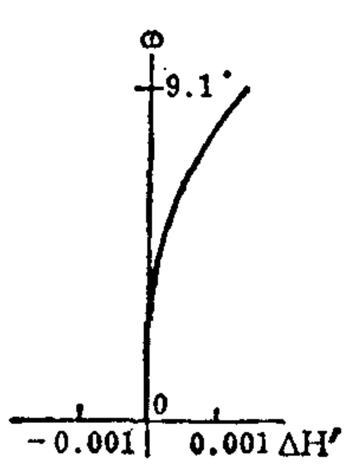
序号	r	d	n	v	序号	r	d	n	v
1	0.38031	0.07969	1.63854	55.3	7	0.25474	0.32089*		
2	23.54702	0.00148			8	−0.21103	0.04444	1.51633	64.0
3	0.36799	0.08088	1.62299	58.1	9	−0.28553	0.00222		
4	0.72406	0.02301			10	1.25906	0.02667	1.72342	37.9
5	−78.93101	0.02222	1.71736	29.5	11	−1.27804			
6	0.22500	0.02222	1.80610	40.8					

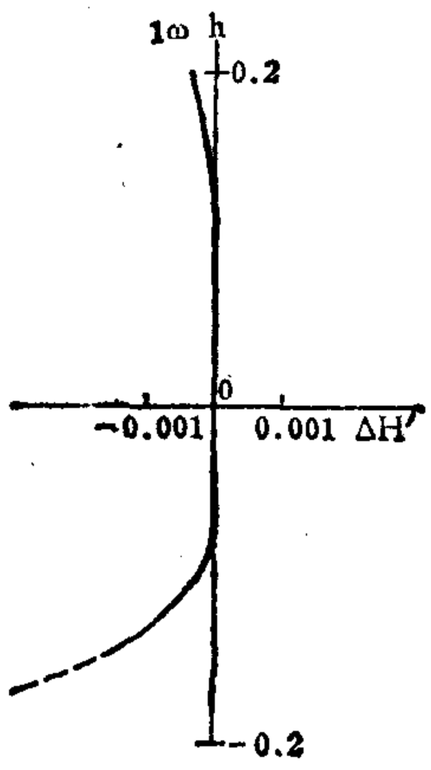
0.32089* = 0.18000 + 0.14089

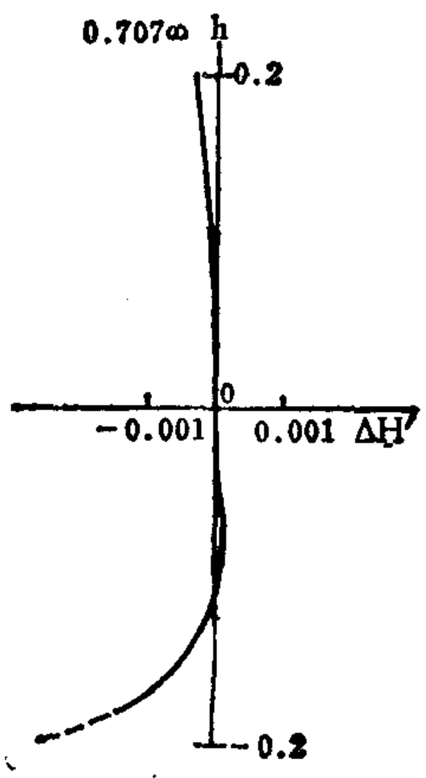
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.000258	0.000065	−0.000010	−0.000132	0.000608	0.16	0.89%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.00066	0.00144	−0.000036	−0.000978	0.000942	−0.00954	−0.00069
70	−0.00079	0.00052	−0.000471	−0.000691	0.000220	−0.00196	−0.00023







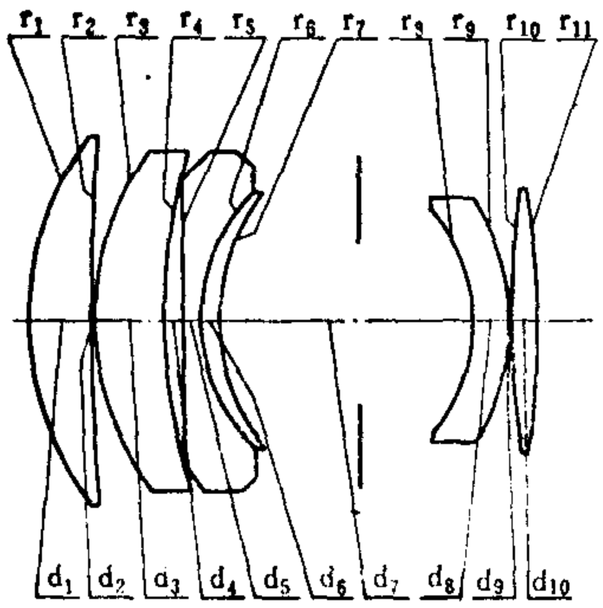




编号：06-00-035

短的大孔径远摄物镜

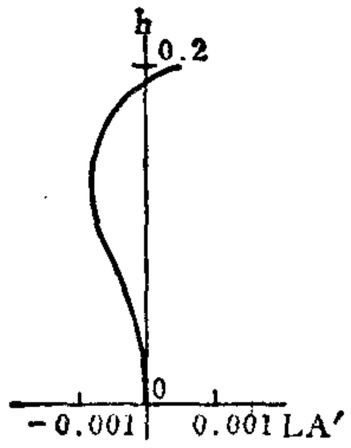
E.F.L＝1　　B.F.L＝0.3630　　FNo.＝2.5　　F.A.＝±9.1°

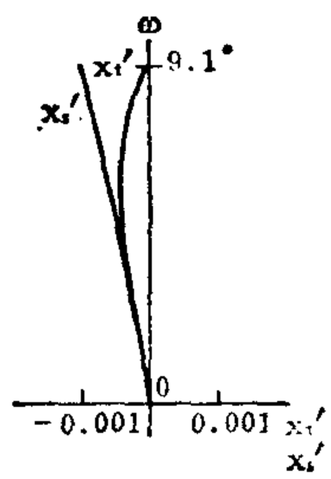


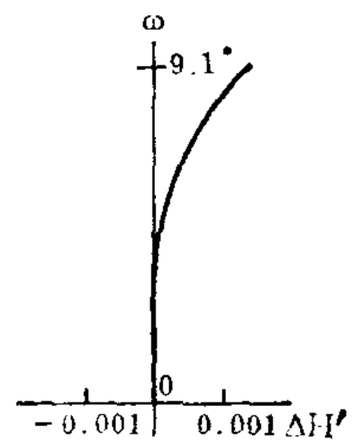
序号	r	d	n	ν	序号	r	d	n	ν
1	0.37682	0.080080	1.63854	55.3	7	0.25481	0.310400*		
2	19.78012	0.001480			8	− 0.21293	0.044440	0.49831	65.0
3	0.35929	0.085520	1.62041	60.2	9	− 0.29370	0.002220		
4	0.69466	0.021165			10	1.37993	0.026670	0.72342	37.9
5	324.76807	0.022220	1.71736	29.5	11	− 1.10364			
6	0.21967	0.022220	1.66998	39.3					

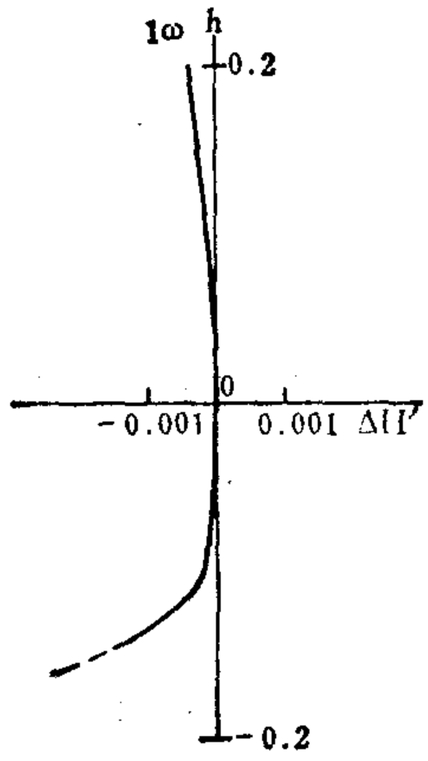
0.310400* = 0.170000 + 0.140400

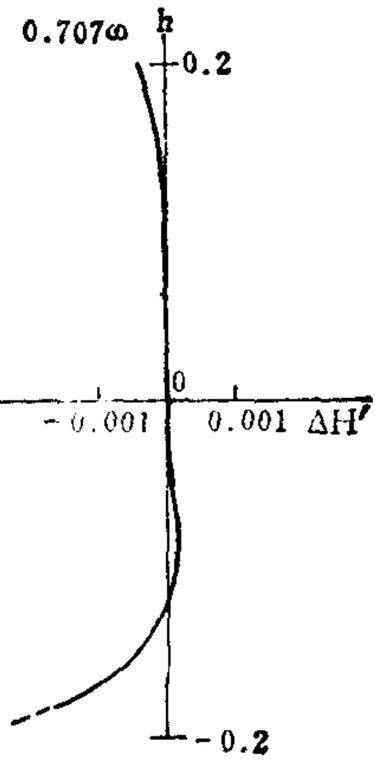
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.000260	0.000060	− 0.000004	− 0.000135	0.000605	0.16	0.9%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{r1}'	$K_{r0.7}'$
100	0.00065	0.00144	− 0.000036	− 0.000974	0.000938	− 0.00902	− 0.00063
70	− 0.00079	0.00052	− 0.000433	− 0.000685	0.000252	− 0.00188	− 0.00022







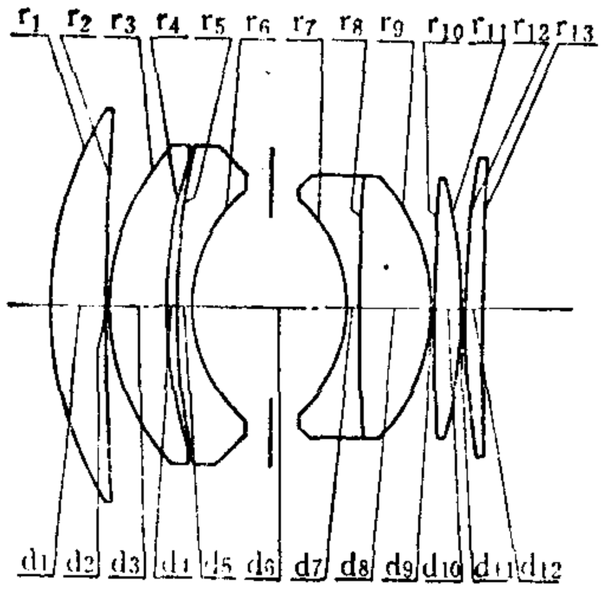




编号：06-00-036

大 孔 径 摄 影 物 镜

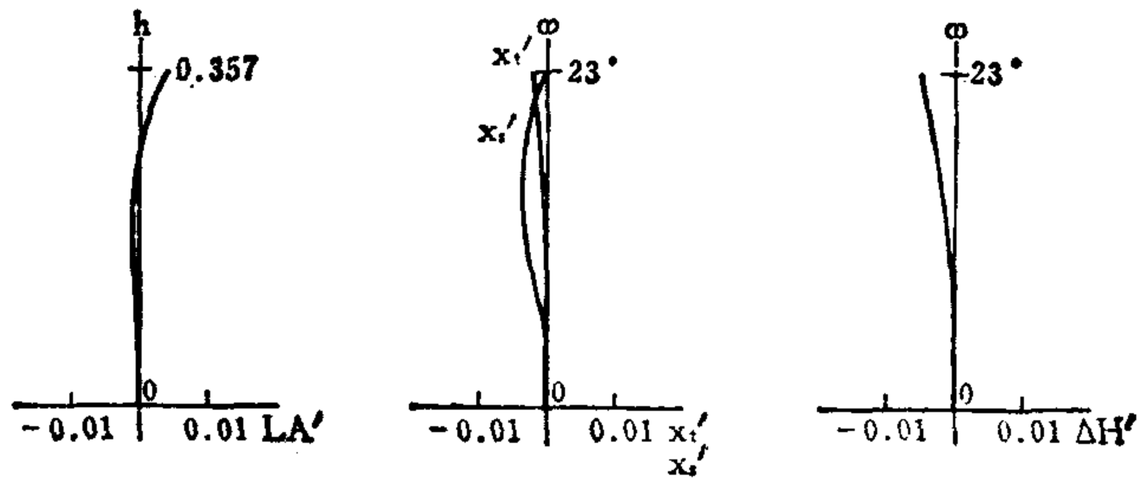
E.F.L＝1　　B.F.L＝0.6927　　FNo.＝1.4　　F.A.＝±23°

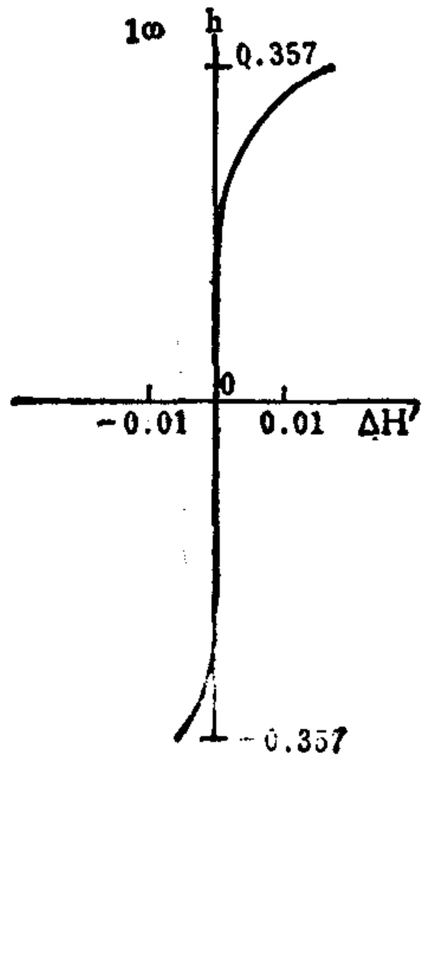


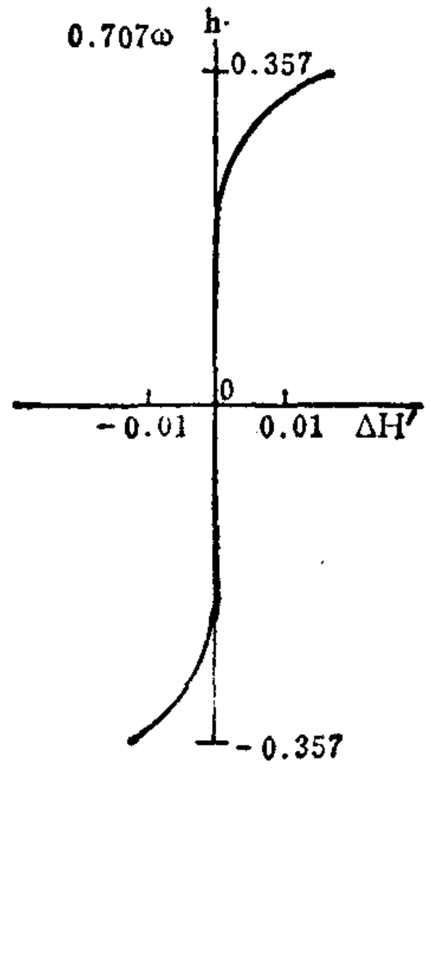
序号	r	d	n	ν	序号	r	d	n	ν
1	0.84100	0.125	1.62041	60.2	8	7.00000	0.160	1.74400	44.7
2	10.31836	0.002			9	− 0.42385	0.002		
3	0.52000	0.128	1.67003	47.2	10	5.34000	0.060	1.77250	49.5
4	1.09239	0.016			11	− 1.18001	0.002		
5	1.75000	0.043	1.60342	38.0	12	1.85000	0.042	1.77250	49.5
6	0.33128	0.335*			13	6.34901			
7	− 0.32000	0.030	1.74077	27.7					

0.3350* = 0.1675 + 0.1675

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.001326	0.000190	0.000898	− 0.003810	− 0.003745	0.42	− 1.2%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K'_{T1}	$K'_{T0.7}$
100	0.004303	− 0.00529	− 0.00166	0.00024	− 0.00190	0.00593	0.00125
70	− 0.000181	− 0.00205	− 0.00127	− 0.00333	0.00206	0.00275	0.00078



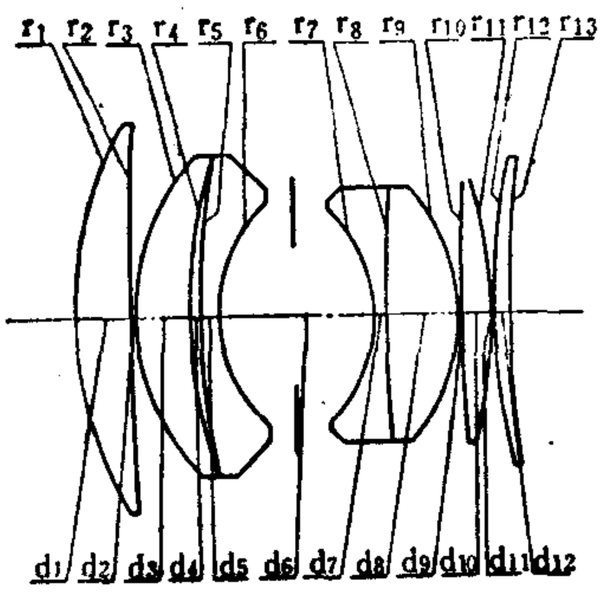




编号：06-00-037

大孔径摄影物镜

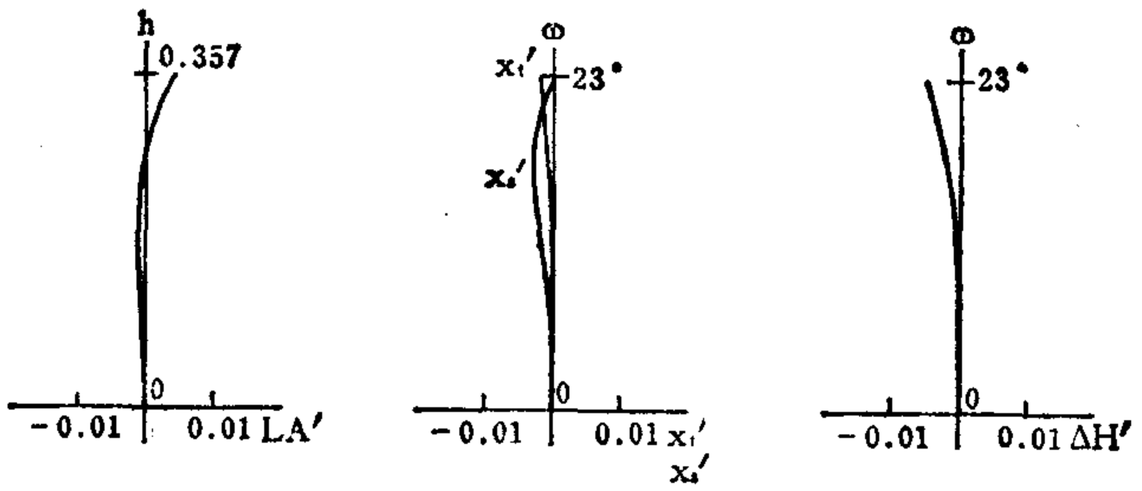
E.F.L＝1　　B.F.L＝0.6976　　FNo.＝1.4　　F.A.＝±23°

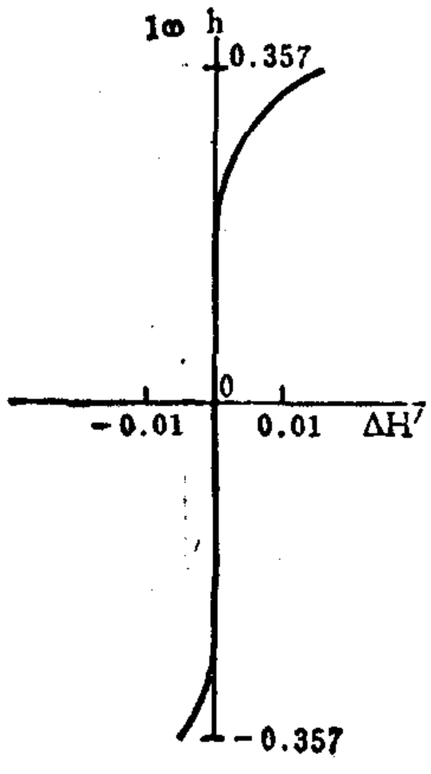


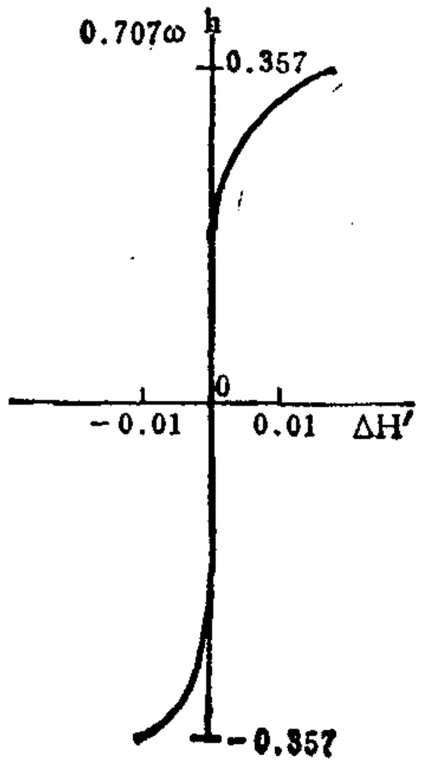
序号	r	d	n	ν	序号	r	d	n	ν
1	0.86700	0.125	1.63854	55.8	8	7.00000	0.160	1.74400	44.7
2	11.93542	0.002			9	− 0.43005	0.002		
3	0.51300	0.125	1.65844	50.8	10	7.50000	0.063	1.77250	49.5
4	1.09270	0.017			11	− 1.07438	0.002		
5	1.83000	0.043	1.60342	38.0	12	1.49000	0.038	1.77250	49.5
6	0.33086	0.337*			13	3.15077			
7	− 0.32500	0.030	1.74077	27.7					

0.3370* = 0.1685 + 0.1685

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.001341	− 0.000017	0.000987	− 0.003813	− 0.003703	0.42	− 1.2%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K'_{r1}	$K'_{r0.7}$
100	0.004114	− 0.0051	− 0.00183	0.00045	− 0.00228	0.00591	0.00096
70	− 0.000399	− 0.0020	− 0.00115	− 0.00325	0.00210	0.00404	0.00067



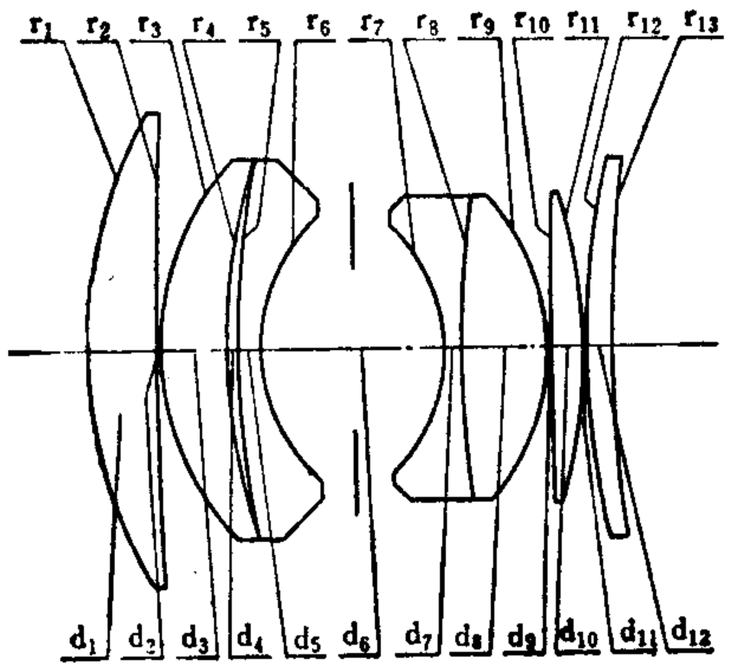




编号：06-00-038

大孔径摄影物镜

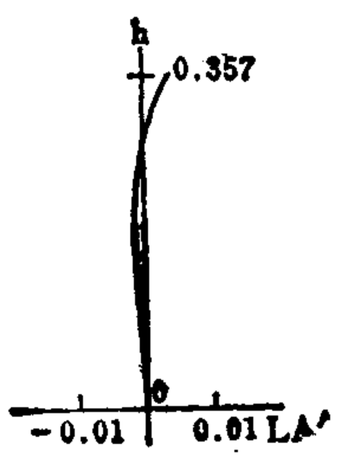
E.F.L＝1　　B.F.L＝0.7049　　FNo.＝1.4　　F.A.＝±23°

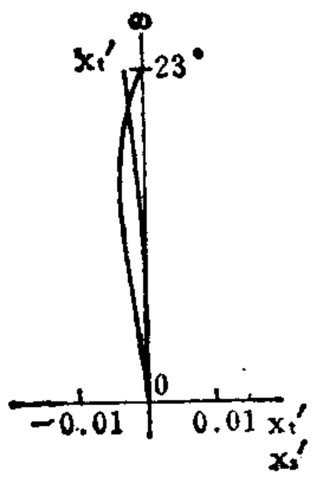


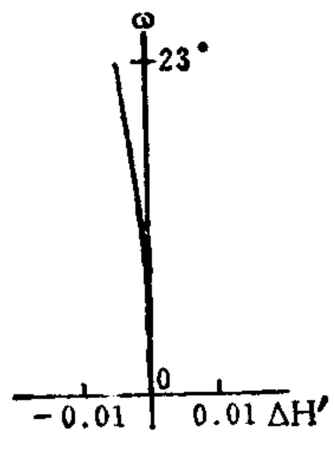
序号	r	d	n	v	序号	r	d	n	v
1	0.88400	0.125	1.62041	60.2	8	2.70000	0.160	1.76200	40.2
2	11.32395	0.002			9	− 0.42958	0.002		
3	0.51400	0.125	1.67003	47.2	10	22.00000	0.058	1.77250	49.5
4	1.12345	0.015			11	− 1.01009	0.002		
5	1.72300	0.043	1.59551	39.0	12	1.42000	0.042	1.77250	49.5
6	0.33164	0.335*			13	3.00554			
7	− 0.32200	0.030	1.76182	26.5					

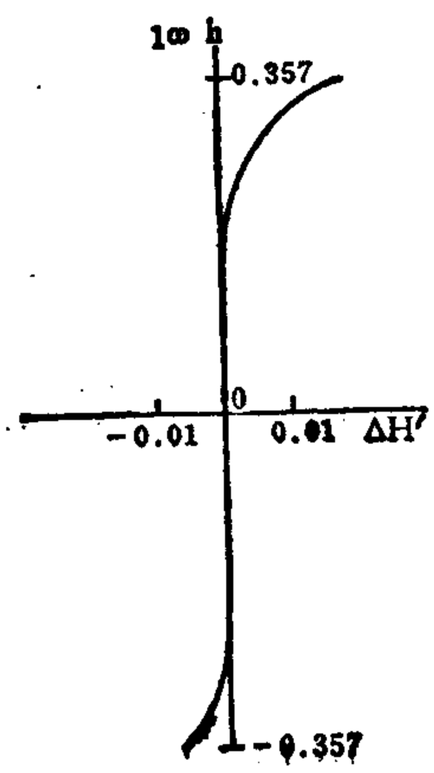
0.3350* = 0.1675 + 0.1675

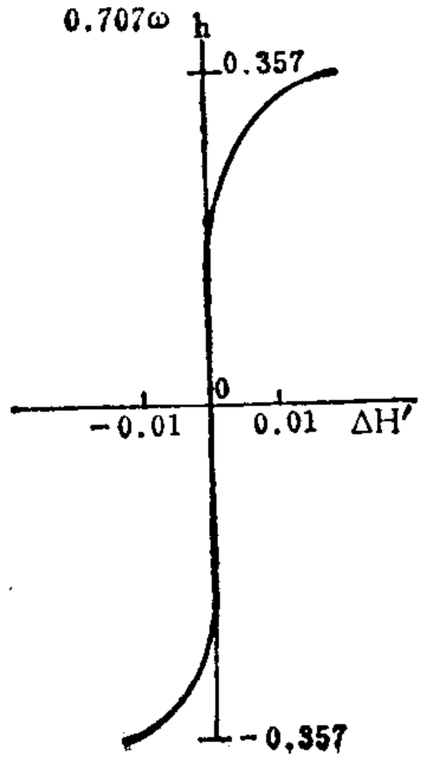
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.001737	0.000114	0.000853	− 0.003708	− 0.003332	0.42	− 1.1%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.004207	− 0.0045	− 0.00244	− 0.00004	− 0.00240	0.00598	0.00103
70	− 0.000942	− 0.0018	− 0.00166	− 0.00337	0.00171	0.00323	0.00068







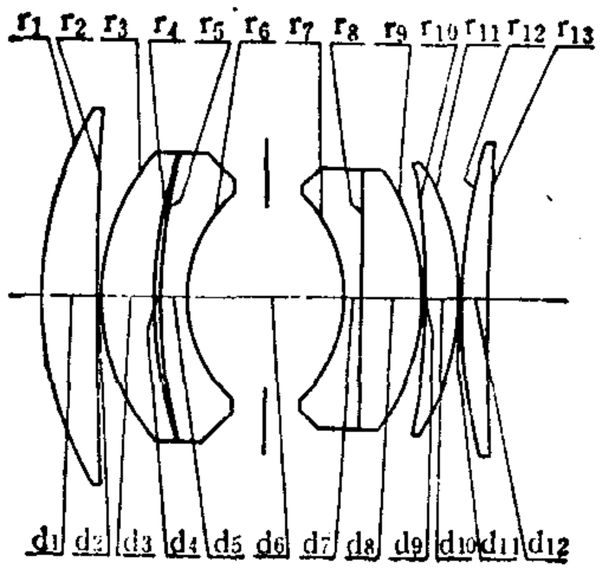




编号：06-00-039

大孔径摄影物镜

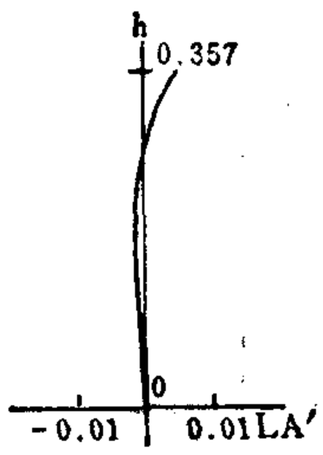
E.F.L＝1　　B.F.L＝0.6865　　FNo.＝1.4　　F.A.＝±23°

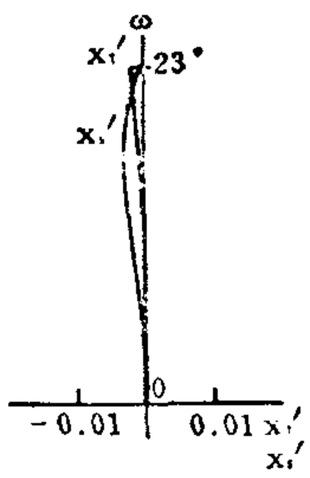


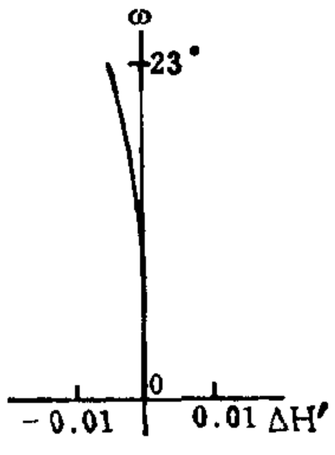
序号	r	d	n	ν	序号	r	d	n	ν
1	0.82100	0.125	1.62041	60.2	8	−15.00000	0.135	1.71300	53.9
2	5.71242	0.002			9	− 0.50025	0.002		
3	0.48900	0.120	1.67003	47.2	10	− 1.71700	0.078	1.80610	40.8
4	1.01500	0.012			11	− 0.57263	0.002		
5	1.27000	0.055	1.59551	39.0	12	1.31000	0.055	1.80610	40.8
6	0.30513	0.343*			13	8.60135			
7	− 0.32500	0.040	1.78472	25.6					

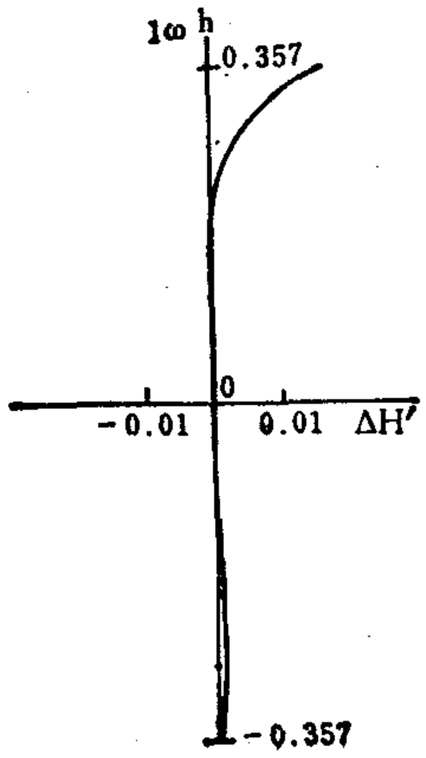
0.3430* = 0.1715 + 0.1715

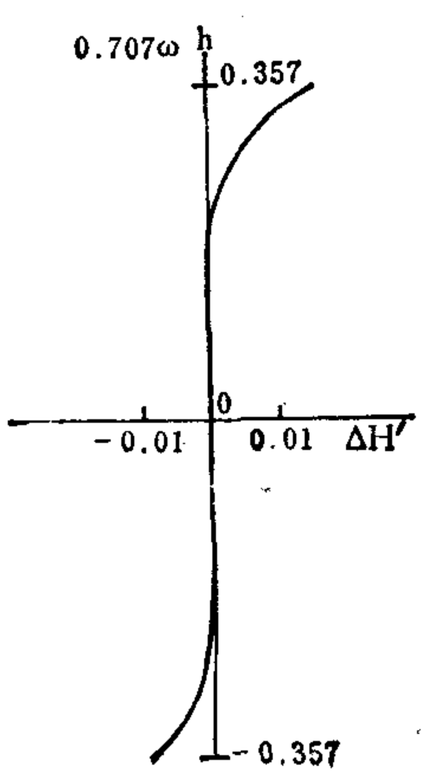
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.001559	− 0.000228	0.000996	− 0.003577	− 0.003935	0.42	− 1.2%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K'_{T1}	$K'_{T0.7}$
100	0.004743	− 0.00516	− 0.00191	− 0.00057	− 0.00134	0.00758	0.00104
70	− 0.000328	− 0.00208	− 0.00097	− 0.00315	0.00218	0.00430	0.00038







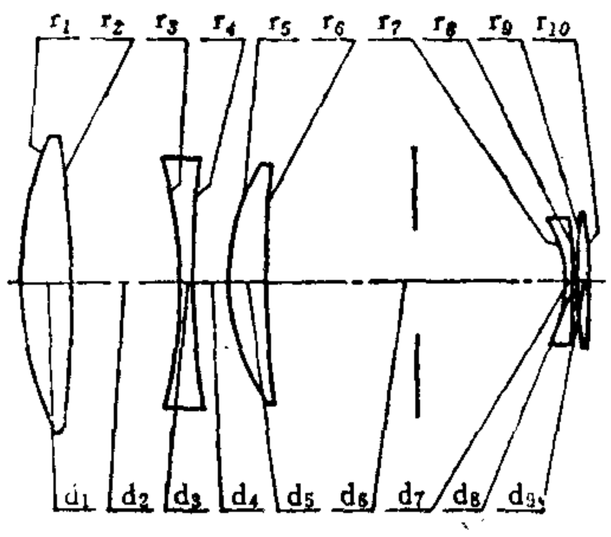




编号：06-00-040

大孔径远摄物镜

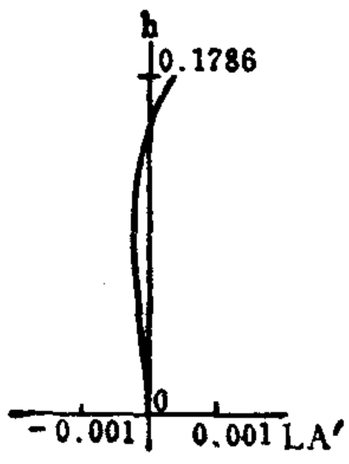
E.F.L＝1　　B.F.L＝0.2368　　FNo.＝2.8　　F.A.＝±6.3°

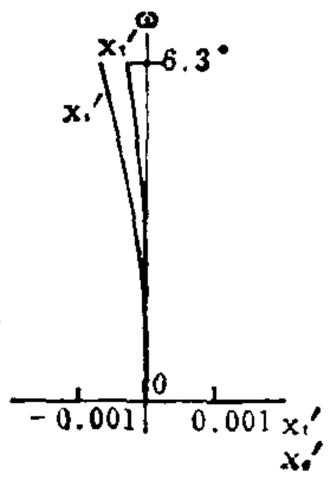


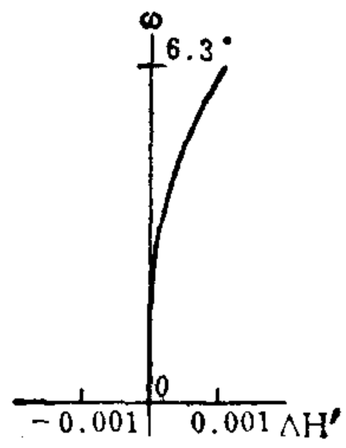
序号	r	d	n	ν	序号	r	d	n	ν
1	0.46414	0.06154	1.51633	64.1	7	− 0.14978	0.00769	1.49831	65.0
2	− 1.49053	0.13478			8	− 0.86734	0.00256		
3	− 0.60777	0.01538	1.72151	29.2	9	0.81220	0.01333	1.69895	30.1
4	1.48046	0.04189			10	− 0.76878			
5	0.27598	0.04308	1.48749	70.1					
6	1.44218	0.36498*							

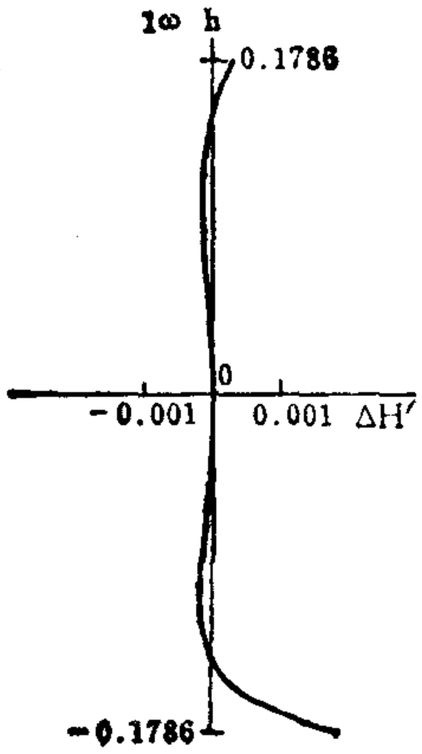
0.36498* = 0.18000 + 0.18498

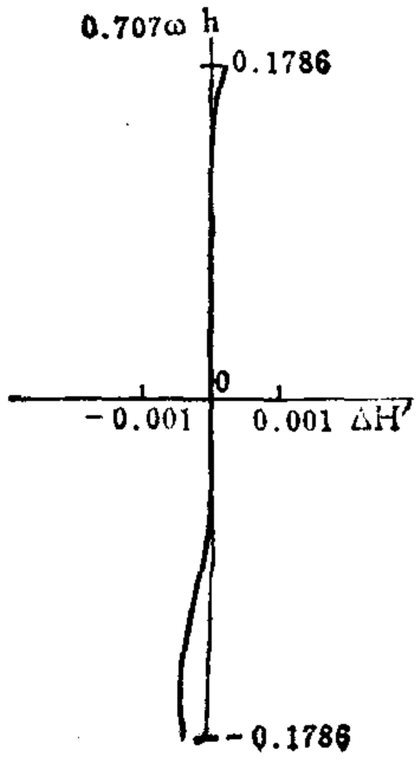
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.000083	− 0.000021	0.000012	− 0.000059	0.000431	0.11	1%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K'_{T1}	$K'_{T0.7}$
100	0.000332	0.00116	− 0.00029	− 0.00066	0.00037	0.001151	− 0.000049
70	− 0.000216	0.00042	− 0.000098	− 0.000346	0.000248	− 0.000092	− 0.000154







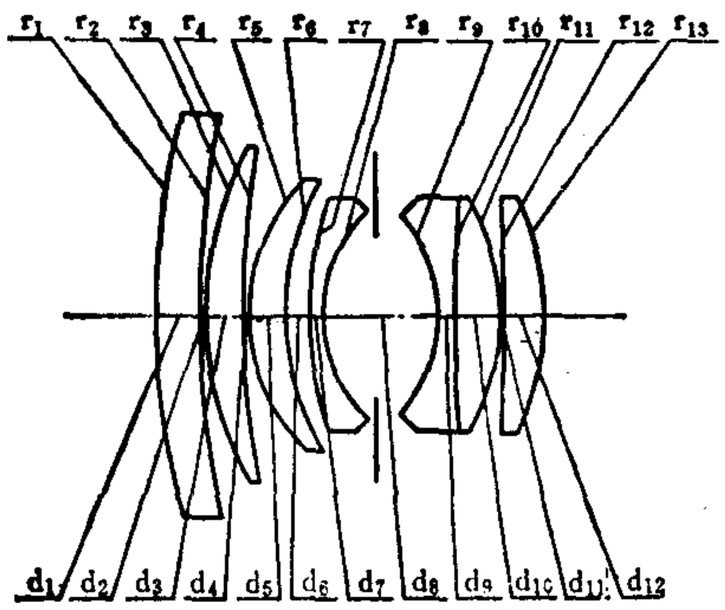




编号：06-00-041

大孔径扩大高斯型摄影物镜

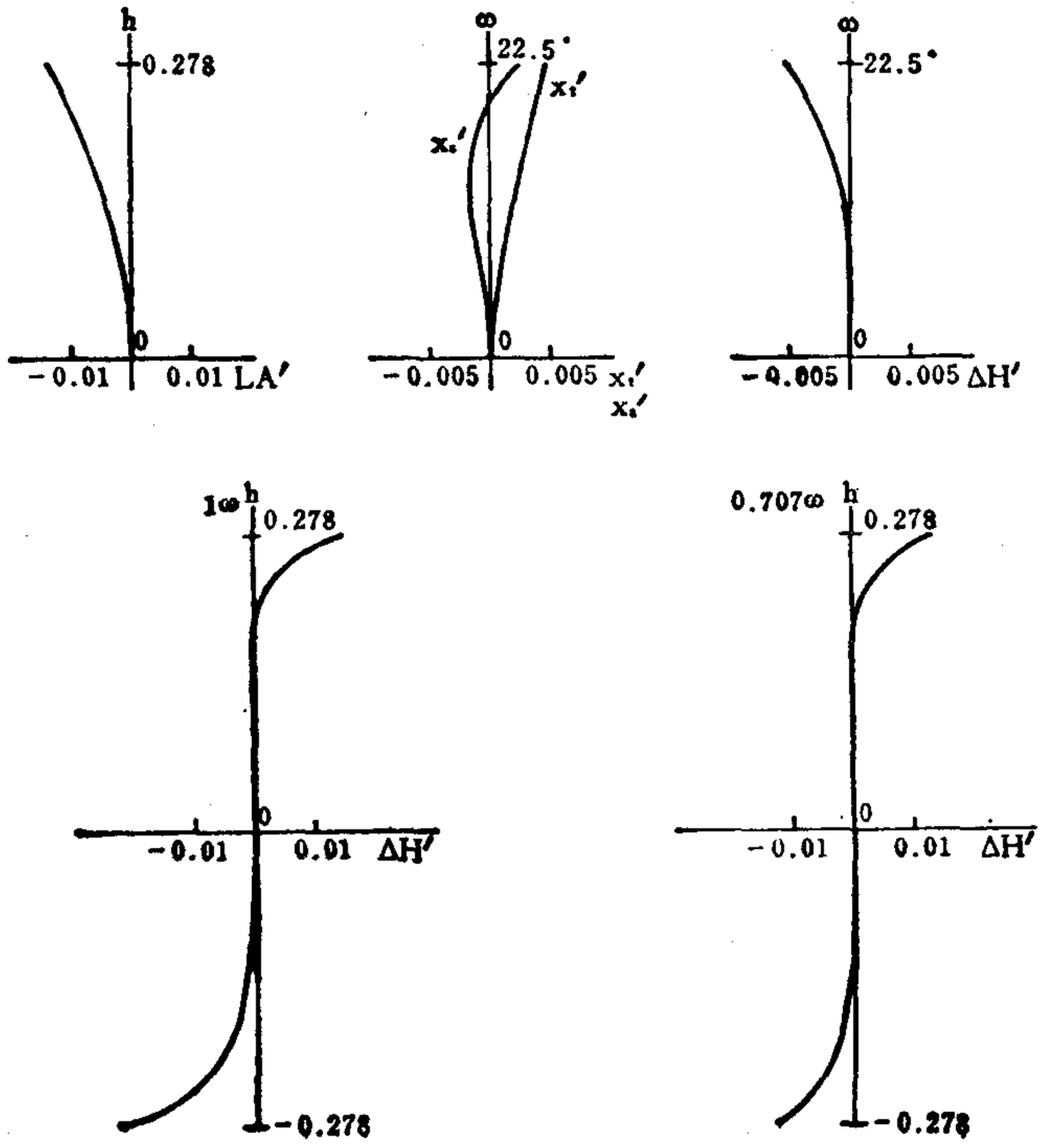
E.F.L＝0.98　　B.F.L＝0.7065　　FNo.＝1.76　　F.A.＝±22.5°



序号	r	d	n	ν	序号	r	d	n	ν
1	1.42316	0.083735	1.50437	56.40	8	0.26361	0.212457*		
2	2.28388	0.001339			9	− 0.28612	0.029269	1.61293	37.04
3	0.63772	0.071489	1.73520	41.58	10	3.21051	0.085783	1.69680	55.43
4	2.03910	0.000957			11	− 0.44300	0.001129		
5	0.35615	0.068350	1.72000	50.42	12	−15.44330	0.070953	1.74400	44.77
6	0.50319	0.044221			13	− 0.54996			
7	0.69137	0.019039	1.80518	25.43					

$0.212457^{*} = 0.100000 + 0.112457$

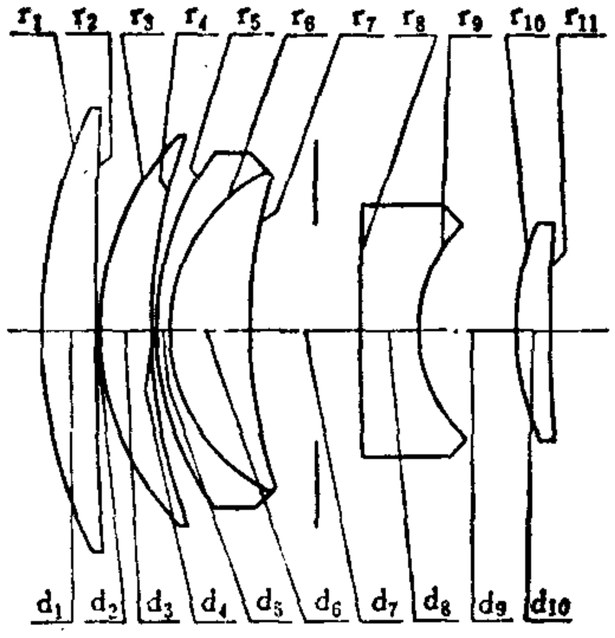
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.002688	−0.000917	0.001126	−0.002244	−0.001883	0.41	−1.2%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.01384	−0.00524	0.00440	0.00245	0.00195	− 0.00492	−0.00173
70	−0.00711	−0.00150	0.00275	− 0.00166	0.00441	0.00028	−0.00108



编号：06-00-042

大孔径长焦距远摄物镜

E.F.L＝100　　B.F.L＝27.026　　FNo.＝2　　F.A.＝±6°

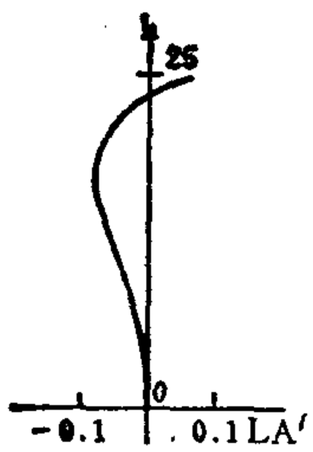


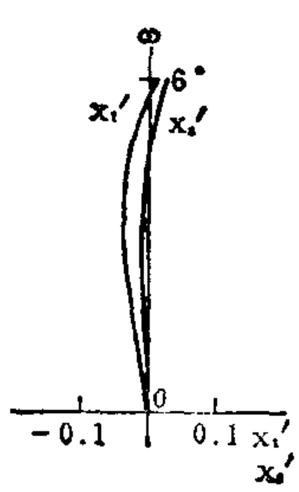
序号	r	d	n	v	序号	r	d	n	v
1	65.500	6.50	1.51633	64.1	7	62.831	13.40*		
2	565.049	0.20			8	500.000	7.00	1.71700	47.9
3	34.000	6.50	1.51633	64.1	9	18.082	12.00		
4	67.687	0.20			10	33.500	4.00	1.62588	35.6
5	36.650	1.50	1.72825	28.3	11	317.231			
6	21.834	10.00	1.51633	64.1					

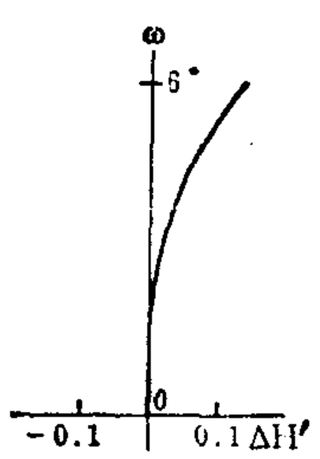
$13.40^{*} = 8.00 + 5.40$

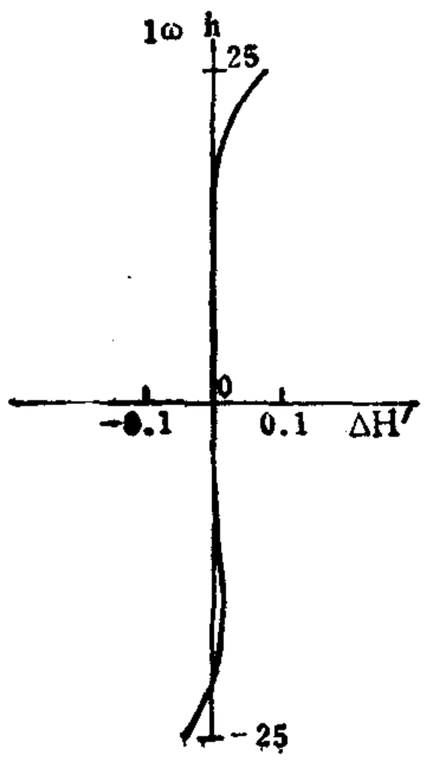
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.04129	−0.01289	−0.00614	0.00018	0.07433	10.5	1.3%

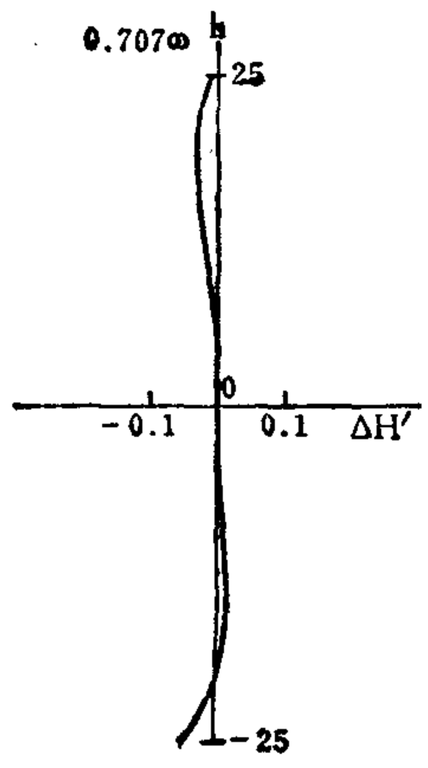
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.0500	0.138	0.0095	0.0264	−0.0169	0.01191	0.00415
70	−0.0800	0.051	−0.0354	−0.0067	−0.0287	−0.03066	−0.01481







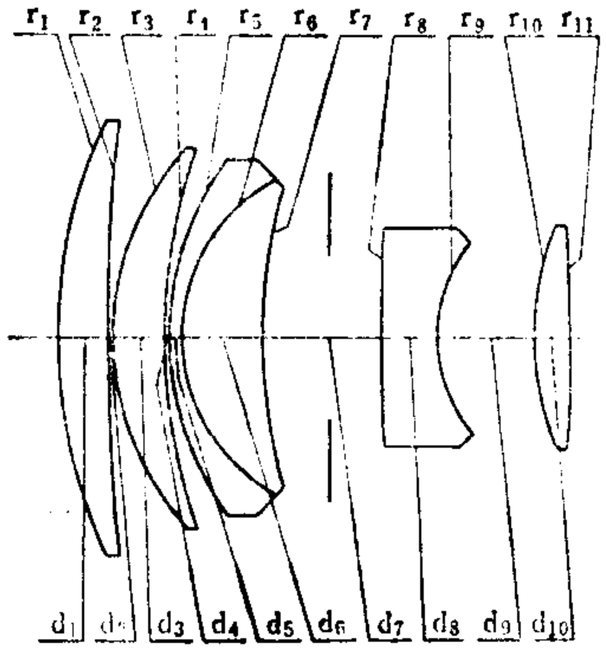




编号：06-00-043

大孔径长焦距远摄物镜

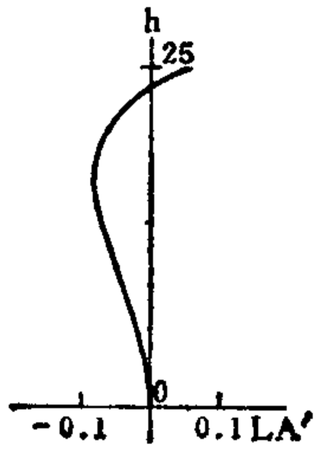
E.F.L＝99.9　　B.F.L＝26.01　　FNo.＝2　　F.A.＝±6°

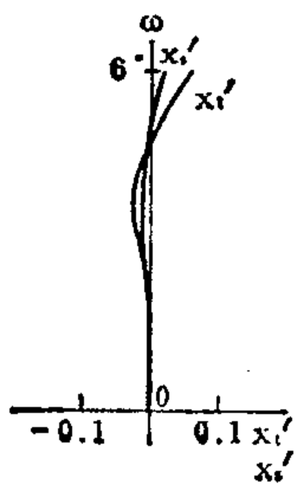


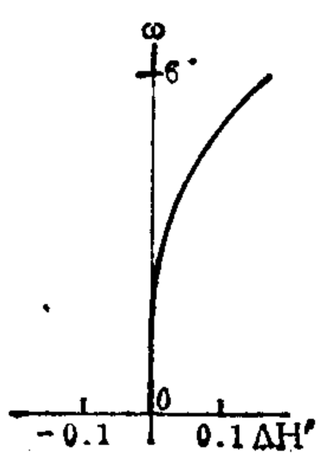
序号	r	d	n	v	序号	r	d	n	v
1	62.500	6.50	1.51633	64.1	7	69.148	14.37*		
2	396.000	0.20			8	10000.000	7.00	1.73400	51.3
3	34.750	6.50	1.51633	64.1	9	18.595	12.00		
4	71.250	0.20			10	36.445	4.00	1.61293	36.9
5	37.400	1.50	1.74000	28.2	11	− 617.407			
6	22.000	10.00	1.51633	64.1					

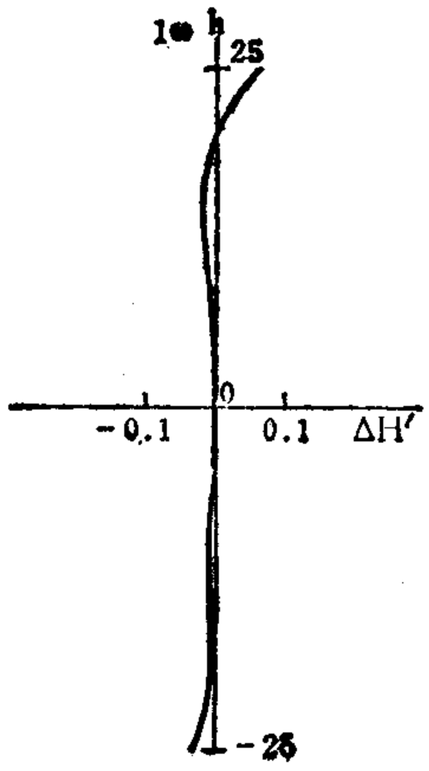
14.37* = 8.00 + 6.37

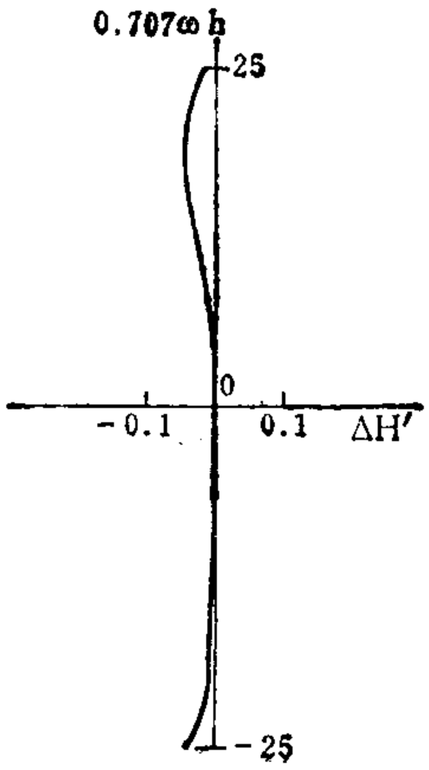
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.04223	−0.01503	−0.00412	−0.00356	0.08832	10.5	1.6%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.0573	0.172	0.0640	0.0210	0.0430	0.01747	−0.00323
70	−0.0797	0.062	−0.0188	−0.0117	−0.0071	−0.02085	−0.01716







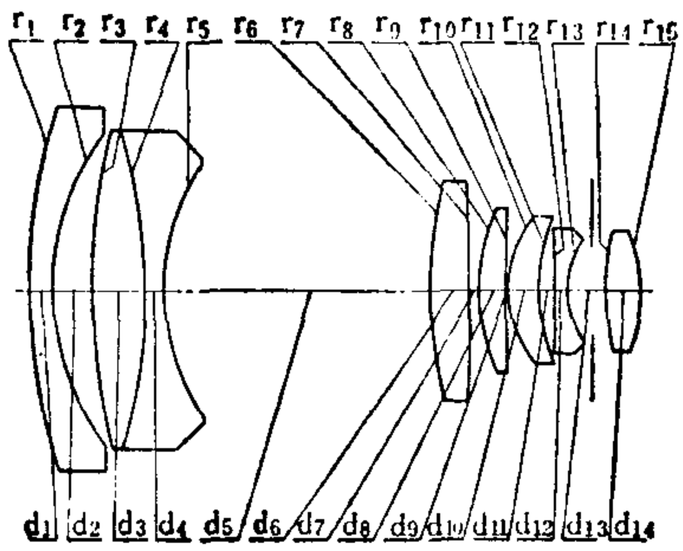




编号：06-00-044

反远距型大孔径广角摄影物镜

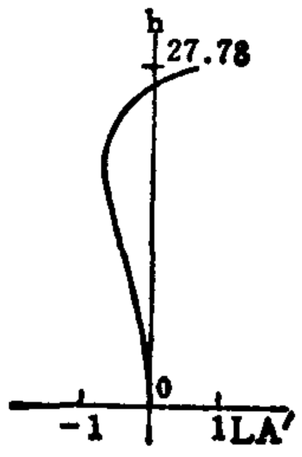
E.F.L＝100　　B.F.L＝106.52　　FNo.＝1.8　　F.A.＝±26.5°

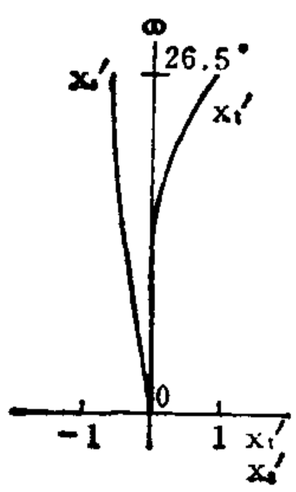


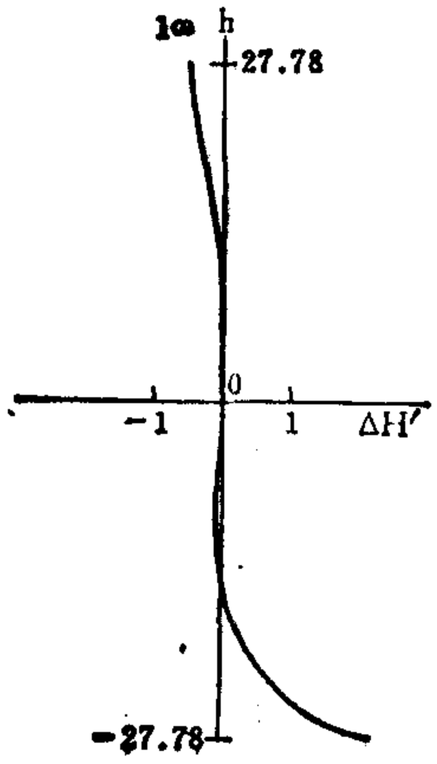
序号	r	d	n	ν	序号	r	d	n	ν
1	410.60	15.4	1.57309	42.7	9	∞	1.5		
2	174.60	25.4			10	76.92	20.8	1.62041	60.3
3	452.10	34.6	1.72825	28.3	11	128.60	10.0		
4	−377.50	15.4	1.57309	42.7	12	−1125.00	9.2	1.72825	28.3
5	150.00	177.7			13	60.39	24.6*		
6	350.00	25.4	1.62041	60.3	14	190.90	23.0	1.62041	60.3
7	−1485.00	7.7			15	−105.58			
8	133.85	17.7	1.62041	60.3					

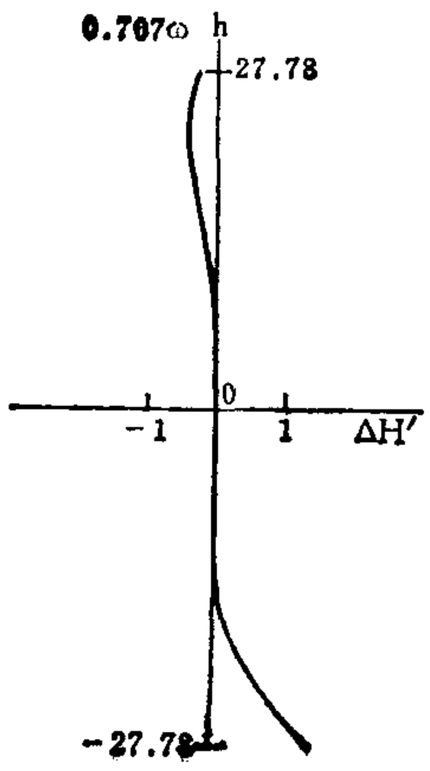
$24.6^{*} = 15.0 + 9.6$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.3493	−0.1151	0.1144	−0.2991	−0.2809	49.8	−1.2%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.636	−0.616	0.871	−0.607	1.478	0.83538	−0.00455
70	−0.712	−0.207	0.128	−0.560	0.688	0.65549	0.00003





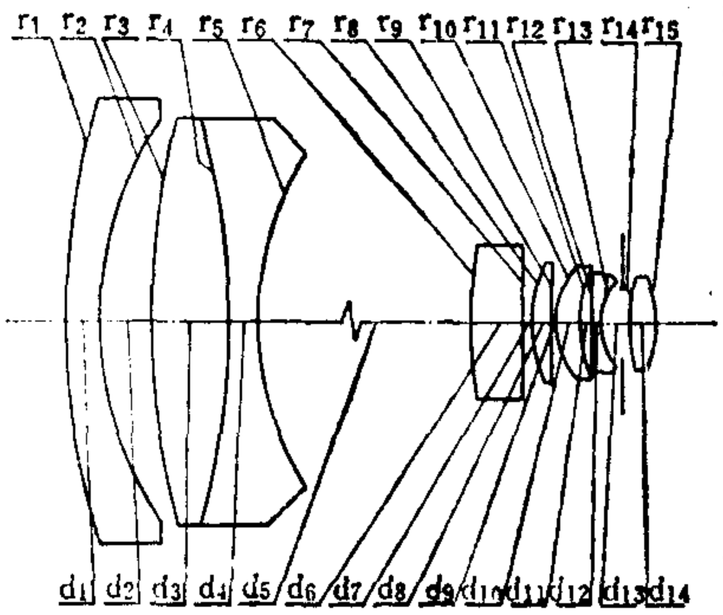




编号：06-00-045

反远距型大孔径广角摄影物镜

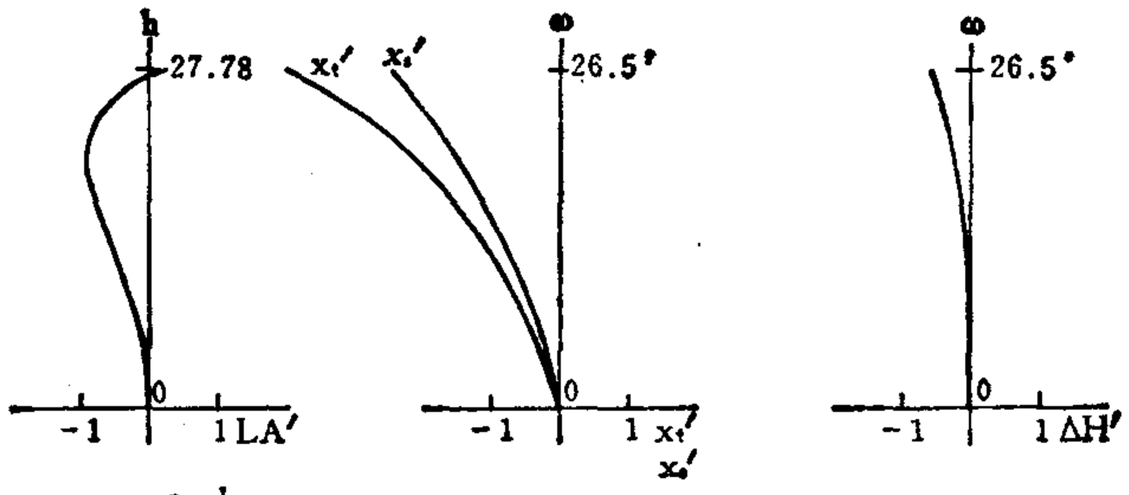
E.F.L＝100　　B.F.L＝106.58　　FNo.＝1.8　　F.A.＝±26.5°



序号	r	d	n	ν	序号	r	d	n	ν
1	759.610	28.490	1.57309	42.7	9	∞	1.500		
2	323.010	46.990			10	76.920	20.800	1.62041	60.3
3	836.385	64.010	1.72825	28.3	11	128.600	10.000		
4	－698.375	28.490	1.57309	42.7	12	－1125.000	9.200	1.72825	28.3
5	277.500	328.745			13	60.390	24.60*		
6	647.500	46.990	1.62041	60.3	14	190.900	23.00	1.62041	60.3
7	－2747.250	7.700			15	－105.580			
8	133.850	17.700	1.62041	60.3					

24.6* = 15.0 + 9.6

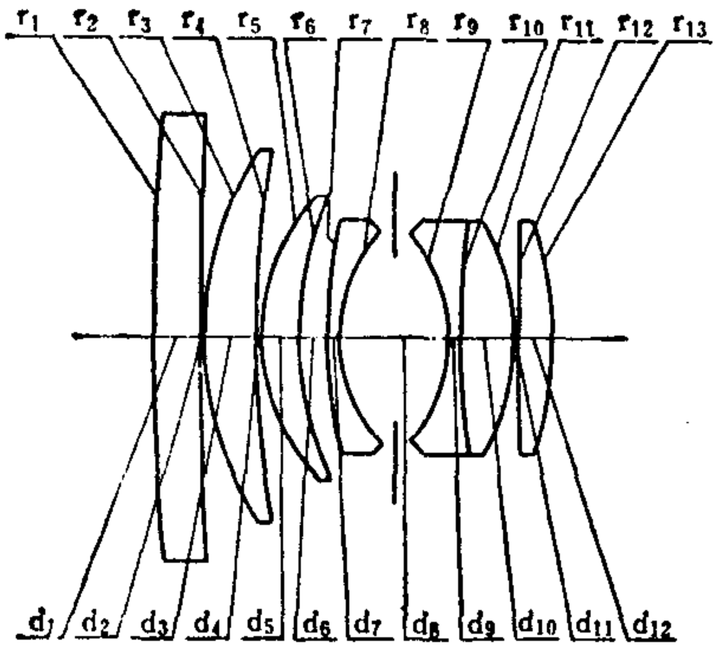
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	－0.4060	0.1837	－0.0852	－0.3833	－0.2207	49.8	－1%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.152	－0.535	－4.034	－2.606	－1.428	2.3981	0.7905
70	－0.879	－0.193	－1.937	－1.436	－0.501	1.8758	0.5898



编号：06-00-046

大孔径扩大高斯型摄影物镜

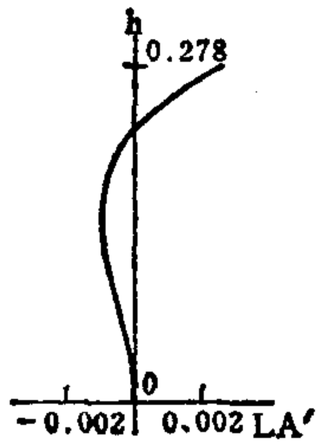
E.F.L＝1　　B.F.L＝0.7089　　FNo.＝1.8　　F.A.＝±22.5°

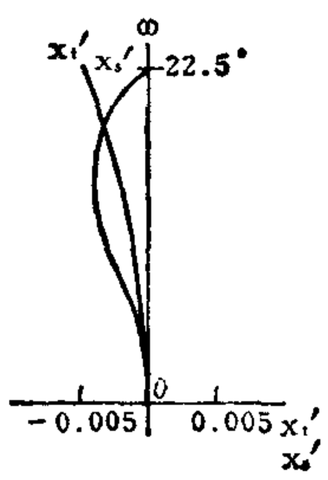


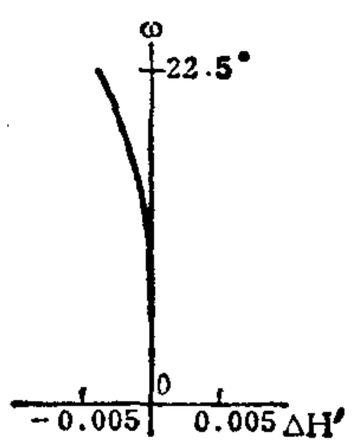
序号	r	d	n	v	序号	r	d	n	v
1	4.23833	0.085188	1.50137	56.40	8	0.28842	0.198388*		
2	246.66100	0.001747			9	− 0.29357	0.020755	1.59551	39.18
3	0.63831	0.097111	1.73520	41.58	10	1.62057	0.097917	1.69680	55.43
4	2.14858	0.002746			11	− 0.44038	0.001670		
5	0.37976	0.072343	1.61484	51.15	12	7.86312	0.063390	1.74400	45.77
6	0.63047	0.049630			13	− 0.67627			
7	0.95863	0.019948	1.80518	25.43					

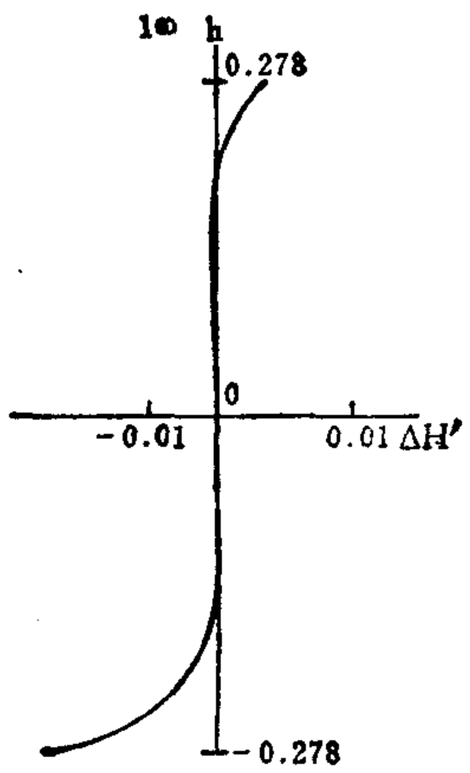
$0.198388^{*} \approx 0.100000 + 0.098388$

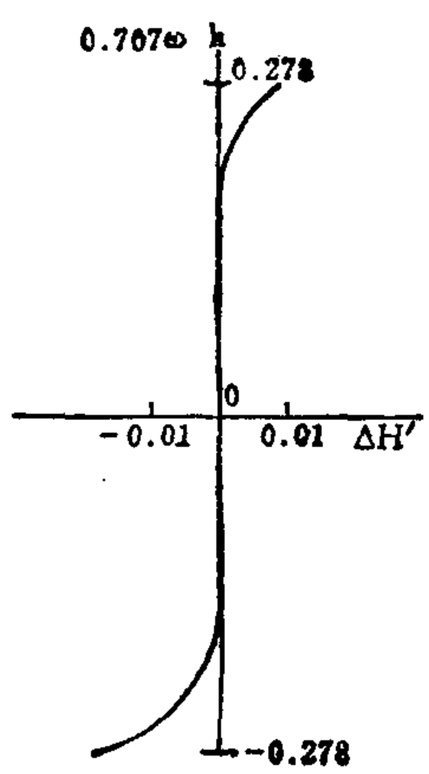
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.000964	− 0.000389	0.000648	− 0.002611	− 0.001015	0.41	− 0.9%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.00271	− 0.0038	− 0.00508	0.00009	− 0.00517	− 0.00979	− 0.00099
70	− 0.00081	− 0.00102	− 0.00231	− 0.00386	0.00155	− 0.00546	− 0.00082







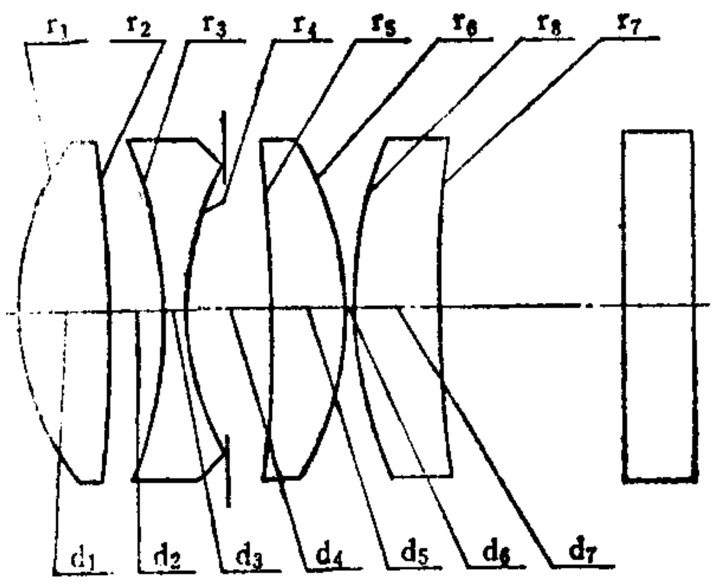




编号：06-00-047

大 孔 径 摄 影 物 镜

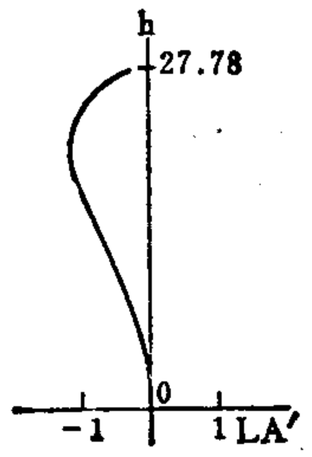
E.F.L＝99.90　　B.F.L＝62.67　　FNo.＝1.8　　F.A.＝±21.5°

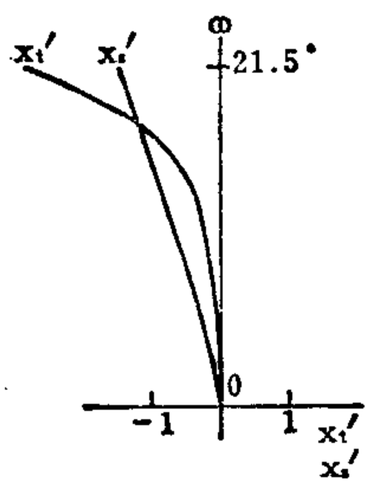


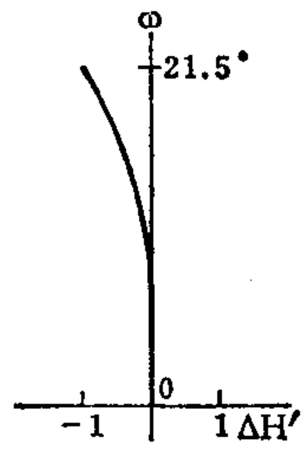
序号	r	d	n	v	序号	r	d	n	v
1	51.22	16.53	1.639	55.4	5	−275.91	13.41	1.639	55.4
2	−489.42	9.66			6	− 60.23	1.27		
3	− 80.73	4.45	1.620	36.3	7	76.01	15.26	1.610	56.5
4	53.40	15.51*			8	227.59			

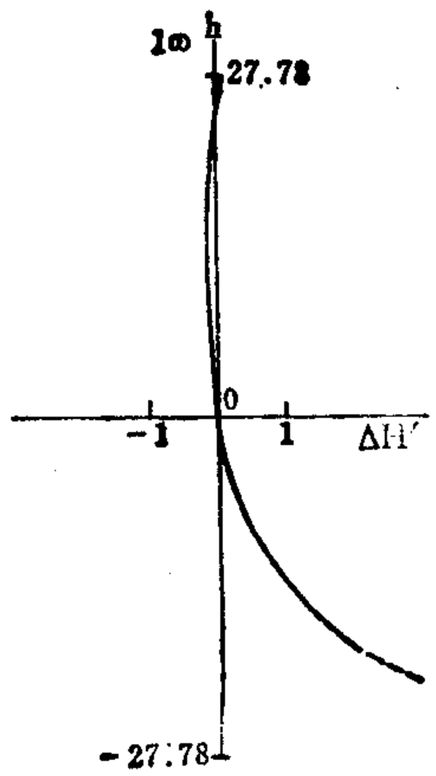
$15.51^{*} = 3.00 + 12.51$

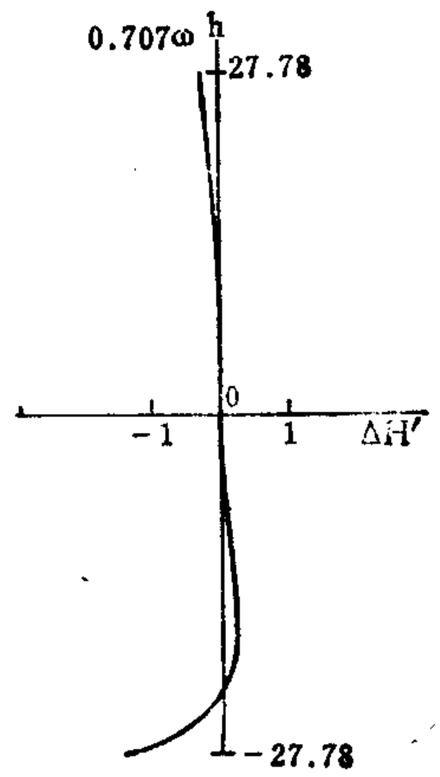
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.4897	0.1087	0.1340	−0.5053	−0.3946	39.3	−2.6%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.214	−1.049	−2.869	−1.513	−1.356	7.8863	1.0592
70	−1.122	−0.319	−0.545	−1.007	0.462	−0.8025	0.0659







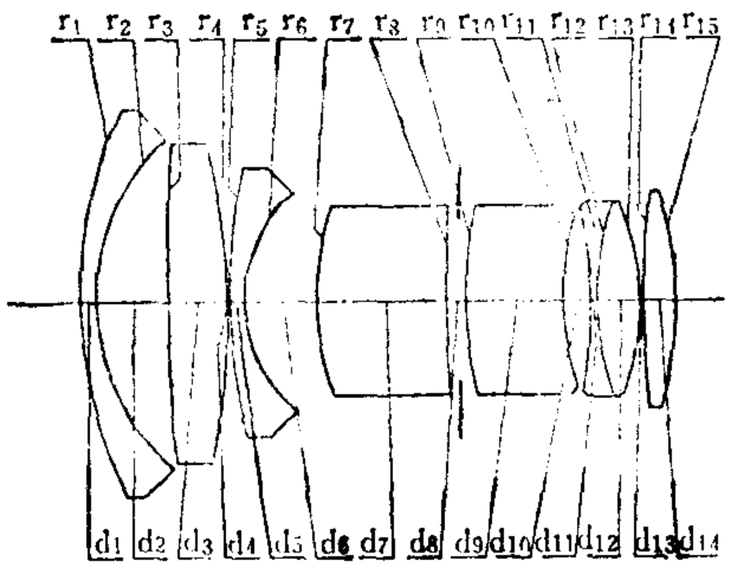




编号：06-00-048

大孔径广角摄影物镜

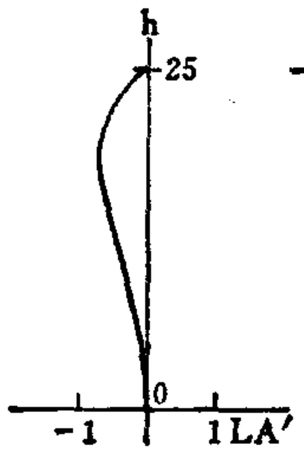
E.F.L＝100　　B.F.L＝140.1　　FNo.＝2.0　　F.A.＝±38.2°

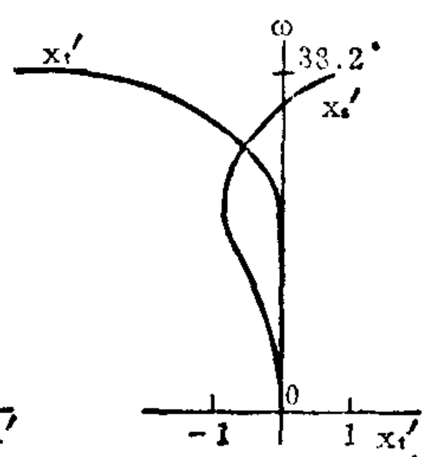


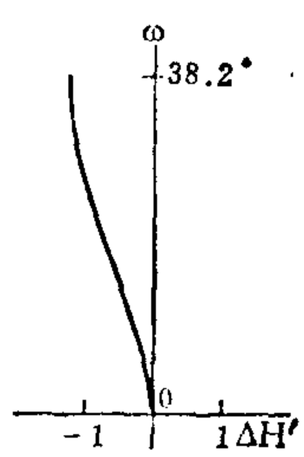
序号	r	d	n	ν	序号	r	d	n	ν
1	199.7	6.8	1.64000	60.2	9	217.6	43.2	1.80518	25.4
2	97.7	31.9			10	120.4	11.7		
3	1186.8	25.4	1.80610	40.8	11	− 216.1	3.9	1.80518	25.4
4	− 355.7	1.7			12	131.2	18.8	1.80300	46.7
5	266.1	6.7	1.62041	60.3	13	− 112.5	0.7		
6	62.3	32.6			14	694.1	14.3	1.81600	46.8
7	127.7	57.5	1.81600	46.8	15	− 164.7			
8	1211.7	7.9*							

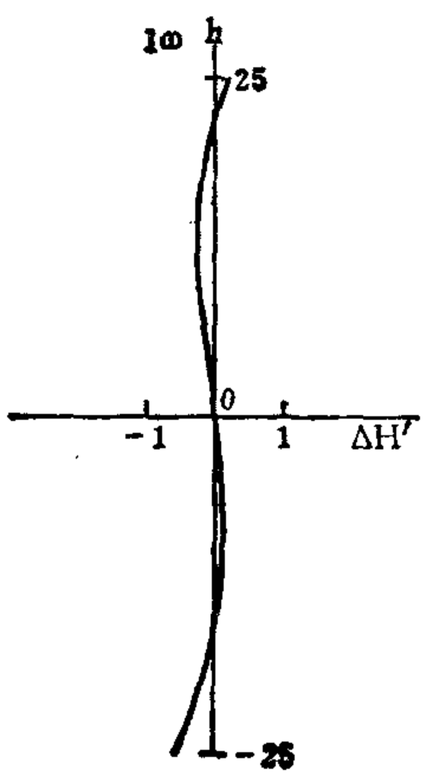
7.9* = 5.5 + 2.4

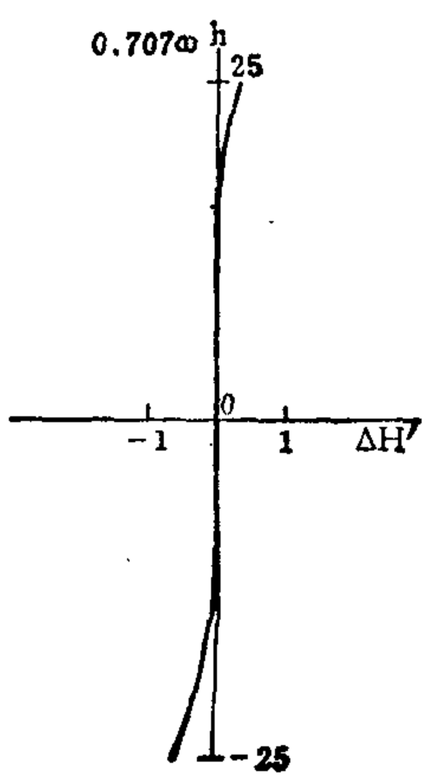
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.2655	− 0.0615	0.1426	− 0.3924	− 1.2928	78.7	− 1.5%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K'_{r_1}	$K'_{r_{0.7}}$
100	− 0.015	− 1.221	− 3.941	0.783	− 4.724	− 0.1588	− 0.1142
70	− 0.645	− 0.932	− 0.099	− 0.799	0.700	− 0.1021	− 0.0924







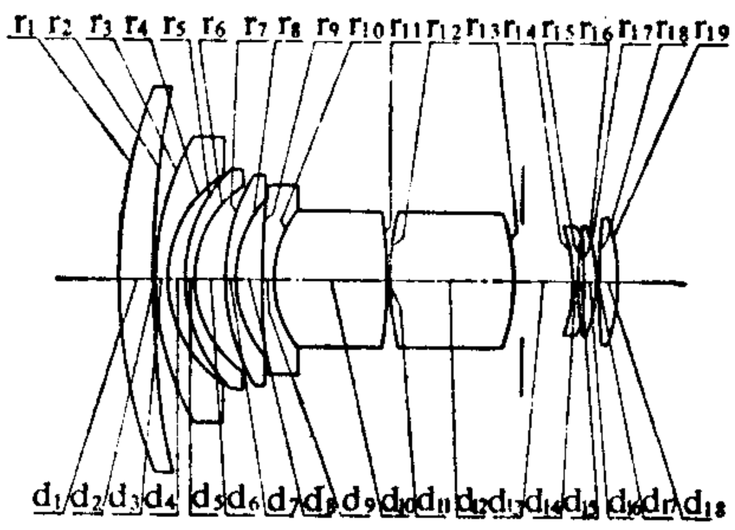




编号：06-00-049

反远距型超广角大孔径物镜

E.F.L＝20　　B.F.L＝37.90　　FNo.＝2.8　　F.A.＝±47°

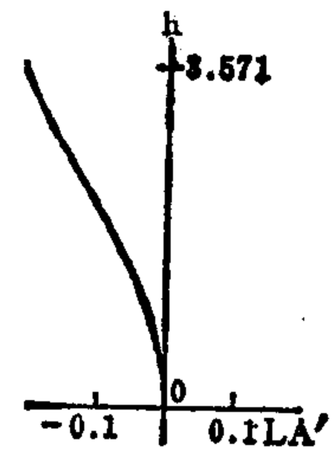


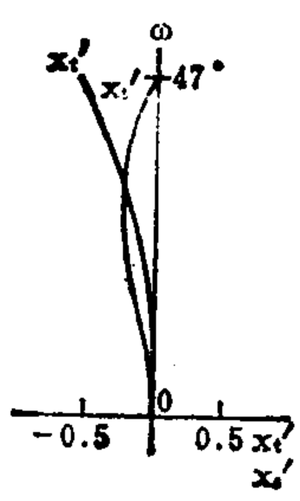
序号	r	d	n	v	序号	r	d	n	v
1	73.500	4.50	1.69680	55.6	11	− 63.600	0.10		
2	210.000	0.10			12	37.000	16.45	1.66755	41.9
3	36.600	1.80	1.77279	49.5	13	− 27.100	7.50*		
4	16.550	2.20			14	− 22.300	0.60	1.80518	25.5
5	20.300	1.35	1.77279	49.5	15	48.500	0.52		
6	15.060	4.10			16	−867.000	2.00	1.63854	55.5
7	28.400	1.20	1.77279	49.5	17	− 20.800	0.05		
8	15.640	3.35			18	113.000	2.20	1.62230	53.1
9	102.000	1.80	1.77279	49.5	19	− 29.792			
10	14.600	14.70	1.54072	47.2					

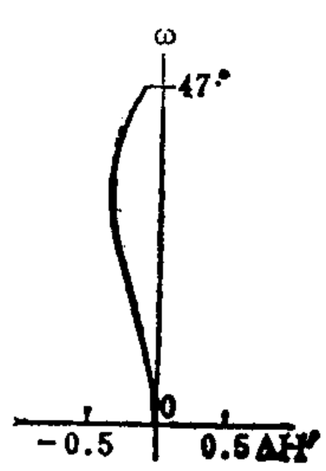
7.50* = 1.00 + 6.50

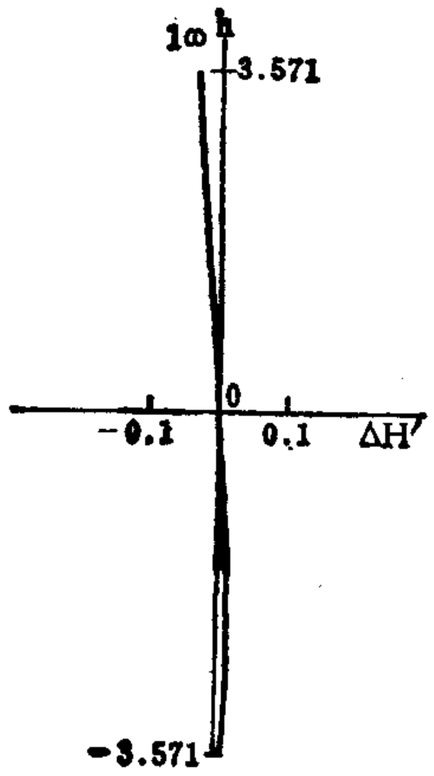
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0221	0.0270	−0.0319	−0.0281	−0.2299	21.46	−0.55%

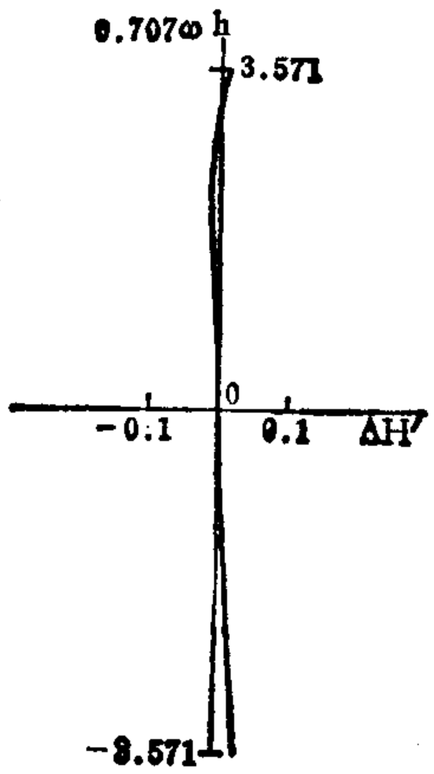
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	$K_{T_1'}$	$K_{T_{0.7}'}$
100	−0.2116	−0.1187	−0.5631	0.0135	−0.5766	−0.01239	−0.00743
70	−0.1414	−0.3654	−0.2517	−0.2409	−0.0108	0.01436	−0.00154







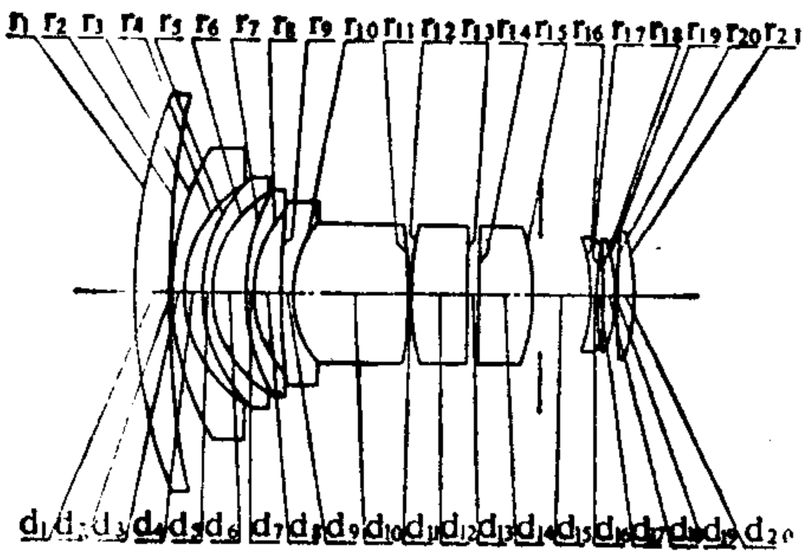




编号：06-00-050

反远距型超广角大孔径物镜

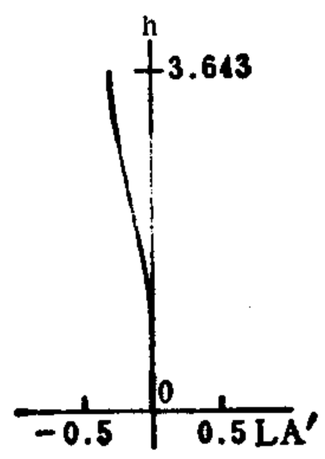
E.F.L=20.32　　B.F.L=38.38　　FNo.=2.8　　F.A.=±47°

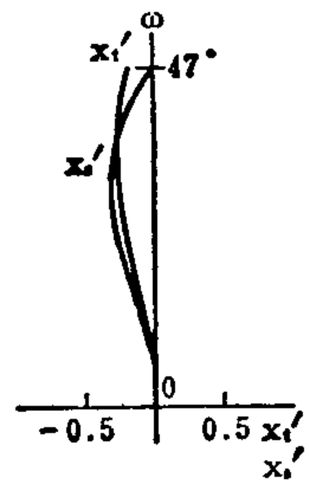


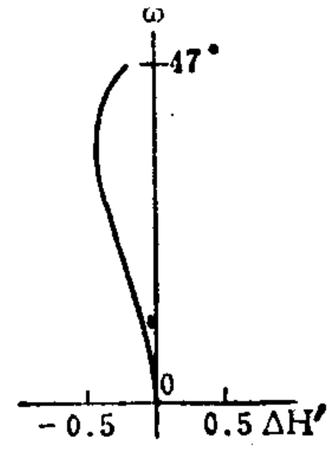
序号	r	d	n	v	序号	r	d	n	v
1	75.00	4.60	1.6968	556.	12	37.35	7.50	1.66755	41.9
2	214.00	0.10			13	∞	1.50		
3	37.30	1.80	1.77279	49.5	14	∞	7.00	1.66755	41.9
4	16.90	2.25			15	- 27.65	7.60*		
5	20.70	1.40	1.78797	47.5	16	- 22.95	0.60	1.80518	25.5
6	15.35	4.20			17	49.50	0.53		
7	29.00	1.20	1.77279	49.5	18	-884.00	1.90	1.63854	55.5
8	15.95	3.40			19	- 21.30	0.10		
9	104.00	1.80	1.77279	49.5	20	110.00	2.30	1.62230	53.1
10	14.90	15.00	1.54072	47.2	21	- 30.78			
11	- 64.90	0.10							

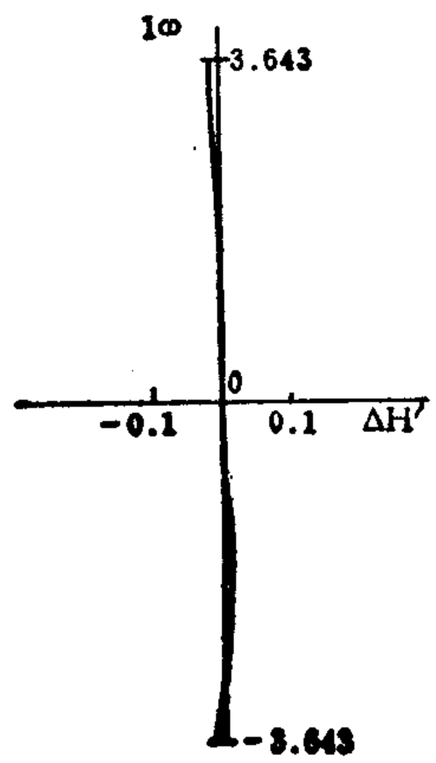
7.60* = 1.00 + 6.60

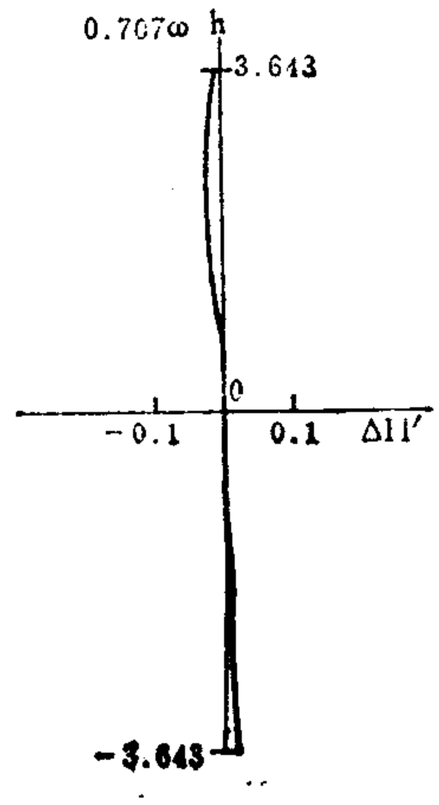
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	- 0.0255	0.0296	- 0.0341	- 0.0297	- 0.2370	21.8	- 0.89%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	- 0.317	- 0.1957	- 0.2100	0.0594	- 0.2694	- 0.01229	- 0.00733
70	- 0.177	- 0.3829	- 0.2399	- 0.2485	0.0086	0.00973	- 0.00378







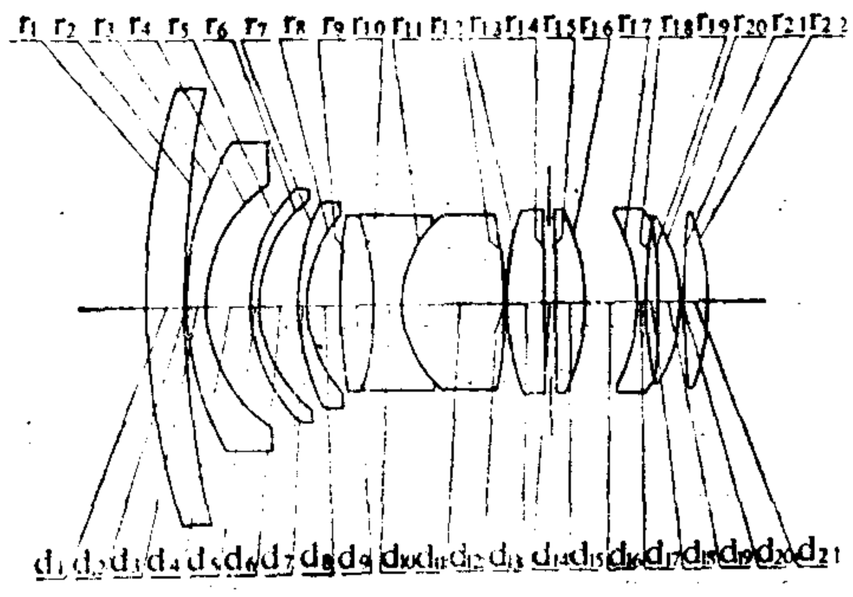




编号：06-00-051

反远距型超广角大孔径物镜

E.F.L＝20.36　　B.F.L＝38.82　　FNo.＝2　　F.A.＝±47°

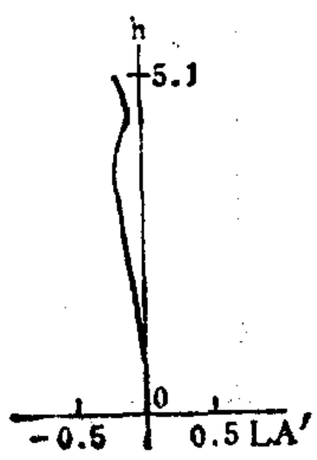


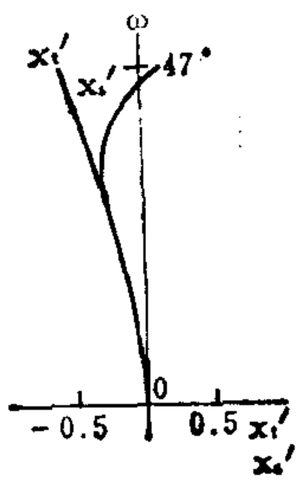
序号	r	d	n	ν	序号	r	d	n	ν
1	96.20	5.10	1.74400	44.9	12	− 65.00	0.10		
2	220.00	0.10			13	36.30	4.90	1.66446	35.9
3	39.00	2.60	1.77279	49.5	14	∞	1.60*		
4	19.20	5.90			15	∞	3.90	1.66950	51.5
5	22.00	1.20	1.77279	49.5	16	− 28.15	6.90		
6	17.20	5.10			17	− 23.80	0.90	1.80518	25.5
7	30.00	1.20	1.77279	49.5	18	46.80	1.60		
8	17.00	4.40			19	−100.00	3.20	1.64006	60.0
9	84.50	4.10	1.74400	44.9	20	− 21.80	0.05		
10	− 40.00	4.00	1.77279	49.5	21	110.00	3.30	1.67025	57.5
11	14.70	13.40	1.54072	47.2	22	− 33.65			

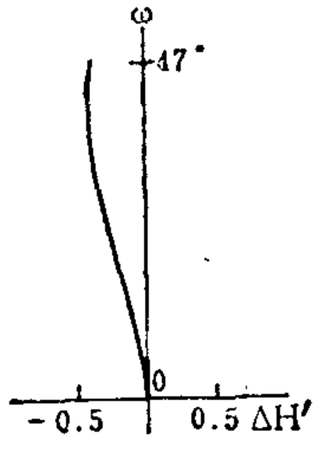
1.60* = 0.80 + 0.80

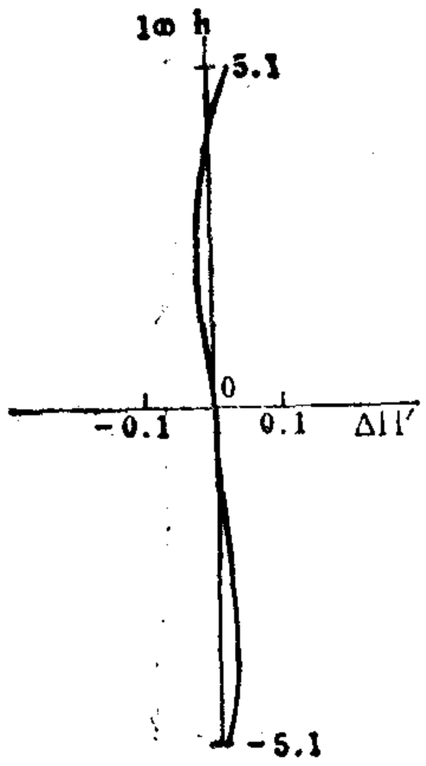
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.0966	0.0475	− 0.0096	− 0.0738	− 0.3877	21.8	− 1.9%

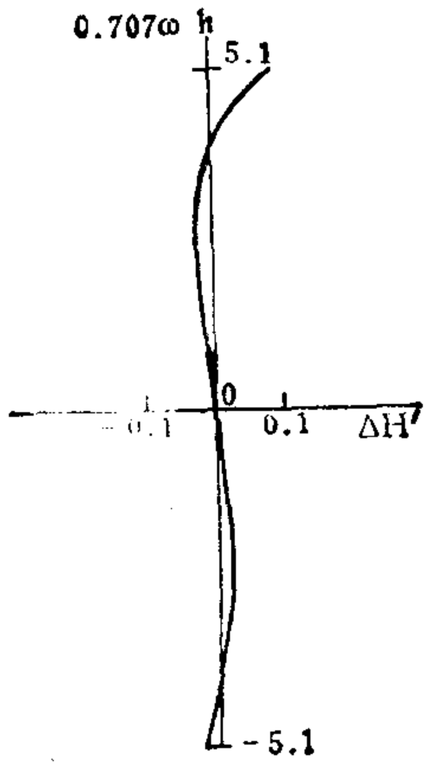
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	− 0.170	− 0.4177	− 0.6160	0.1414	− 0.7574	0.02498	0.00672
70	− 0.187	− 0.3853	− 0.3516	− 0.2861	− 0.0655	0.03413	− 0.00706







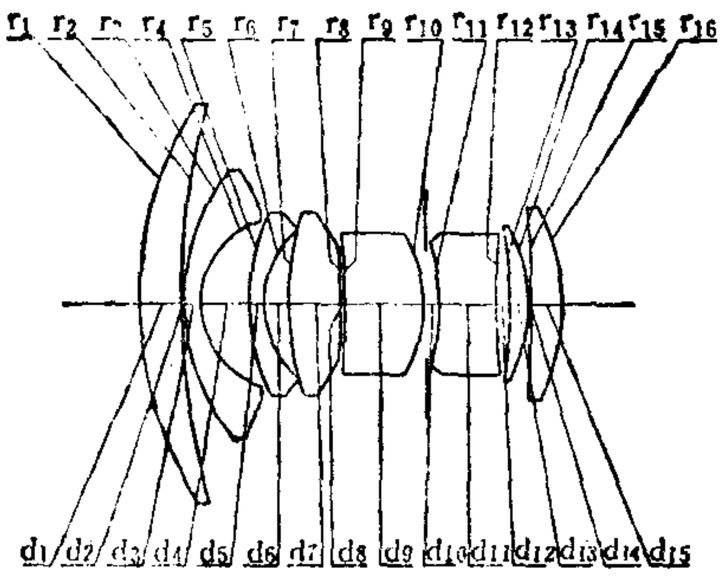




编号：06-00-052

小型明亮的超广角物镜

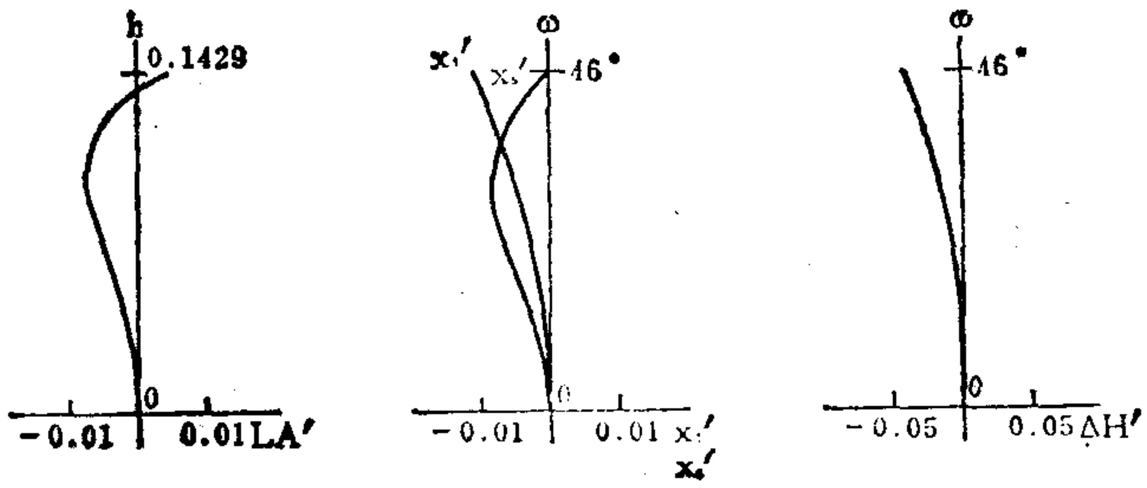
E.F.L=1　　**B.F.L=1.7322**　　**FNo.=3.5**　　**F.A.=±46°**

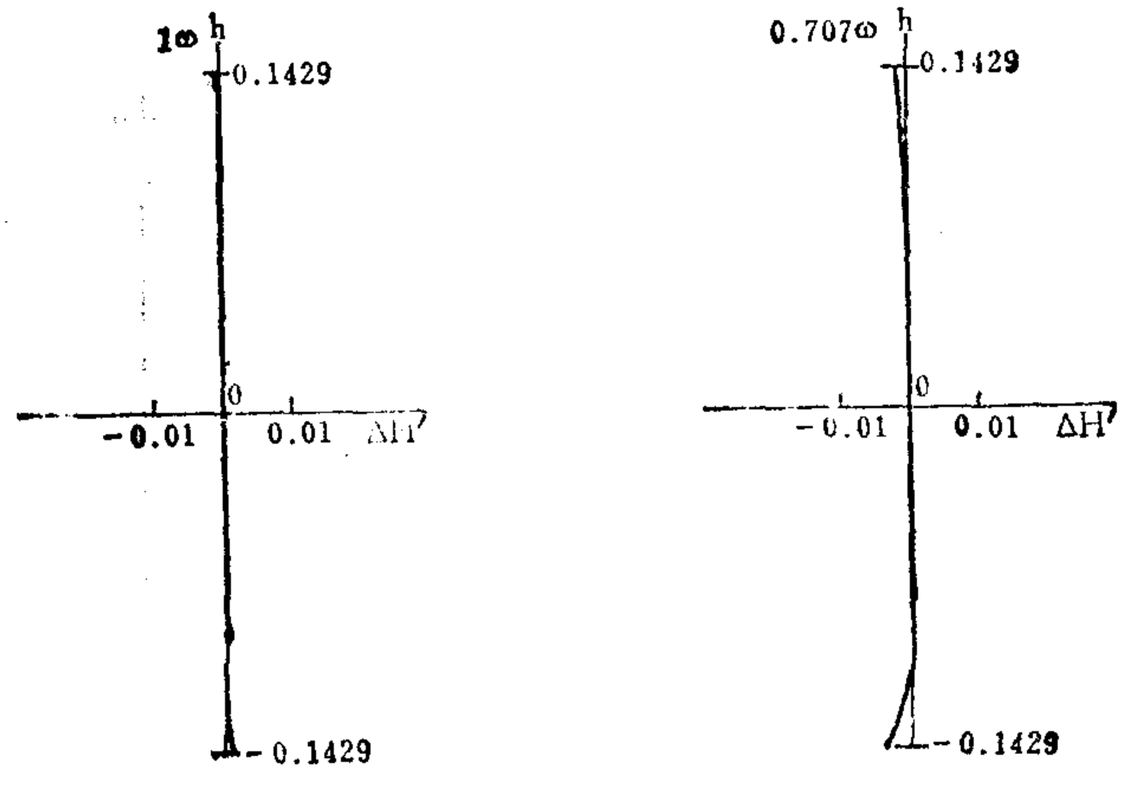


序号	r	d	n	ν	序号	r	d	n	ν
1	1.6748	0.1856	1.7200	42.1	9	−28.0687	0.3550	1.6166	36.6
2	3.2590	0.0046			10	− 0.6238	0.0743*		
3	0.9455	0.0696	1.6180	63.4	11	− 1.0704	0.2506	1.8467	23.9
4	0.3825	0.2096			12	2.9904	0.0510		
5	0.9313	0.0696	1.7130	54.0	13	− 2.3107	0.0849	1.6180	63.4
6	0.4333	0.1132			14	− 0.7426	0.0070		
7	1.2940	0.2251	1.5955	39.2	15	−14.3292	0.1369	1.6180	63.4
8	− 7.4482	0.0070			16	− 0.9751			

0.0743* = 0.0200 + 0.0543

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.00107	0.00100	− 0.00073	− 0.00086	− 0.01039	1.0	− 3.5%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.00447	− 0.0364	− 0.0108	0.0003	− 0.0111	0.00008	0.00025
70	− 0.00701	− 0.0186	− 0.0055	− 0.0082	0.0027	− 0.00162	− 0.00029

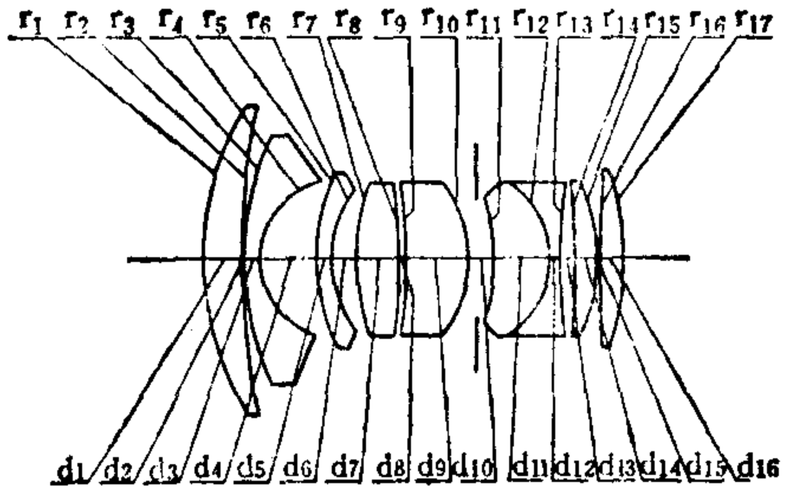




编号：06-00-053

小 型 大 孔 径 超 广 角 物 镜

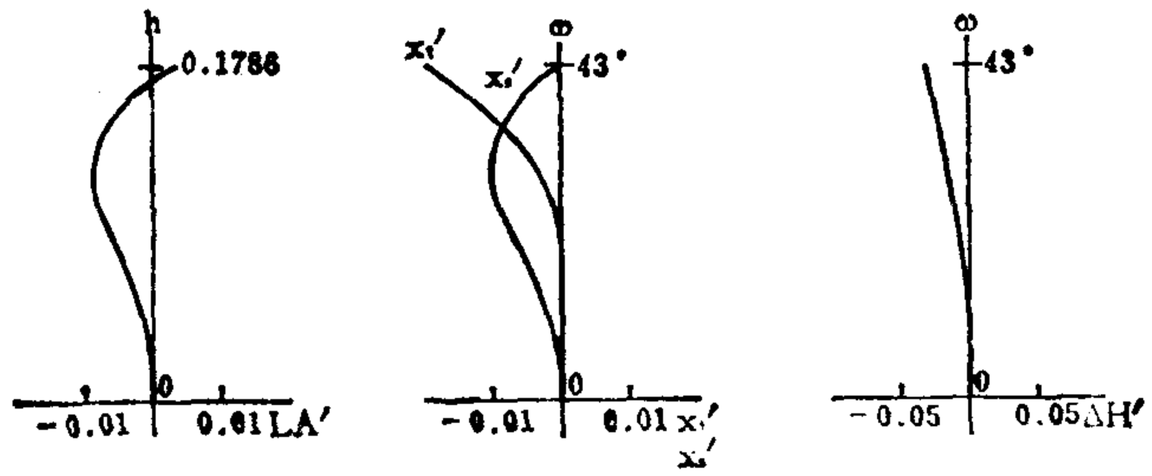
E.F.L＝1　　B.F.L＝1.5976　　FNo.＝2.8　　F.A.＝±43°

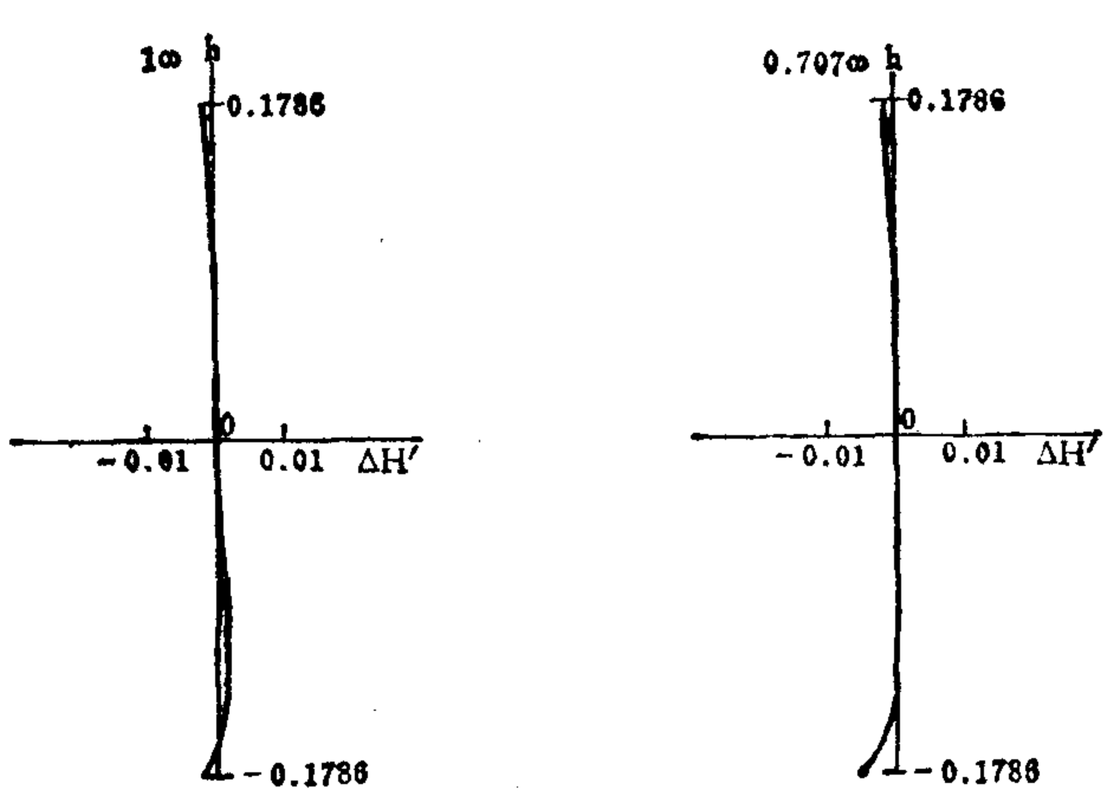


序号	r	d	n	v	序号	r	d	n	v
1	1.3095	0.1749	1.7200	50.3	10	－0.5647	0.1053*		
2	3.4224	0.0042			11	－0.9260	0.2394	1.7618	27.1
3	1.2860	0.0625	1.6228	57.0	12	－0.3966	0.0562	1.8052	25.4
4	0.3527	0.2498			13	2.8183	0.0587		
5	0.9089	0.0625	1.7130	54.0	14	－4.4221	0.1041	1.6204	60.3
6	0.5181	0.1066			15	－0.8160	0.0062		
7	1.0384	0.1940	1.5927	35.5	16	8.8073	0.0999	1.6228	57.0
8	－2.8818	0.0208			17	－1.2339			
9	－2.3420	0.2831	1.6134	43.8					

0.1053* = 0.0300 + 0.0753

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	－0.00175	0.00128	－0.00038	－0.00205	－0.01314	0.9	－3%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.00307	－0.0285	－0.02058	－0.00048	－0.02010	－0.00179	－0.00014
70	－0.00823	－0.0169	－0.00417	－0.01096	0.00679	－0.00343	－0.00049

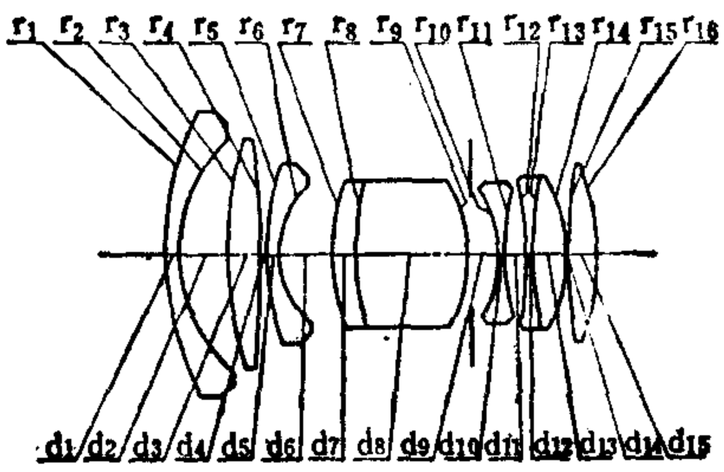




编号：06-00-054

大孔径反远距型广角物镜

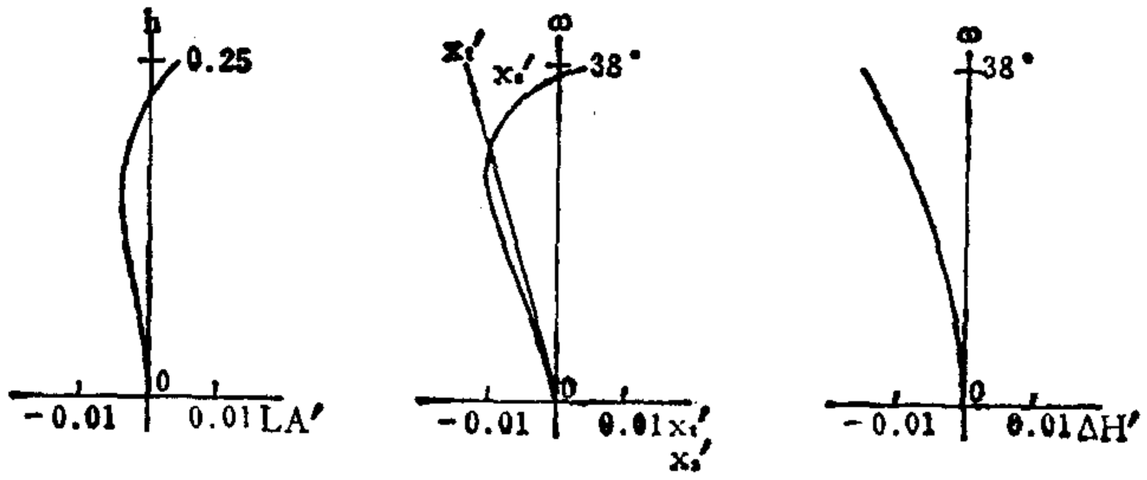
E.F.L=1　　B.F.L=1.3260　　FNo.=2　　F.A.=±38°

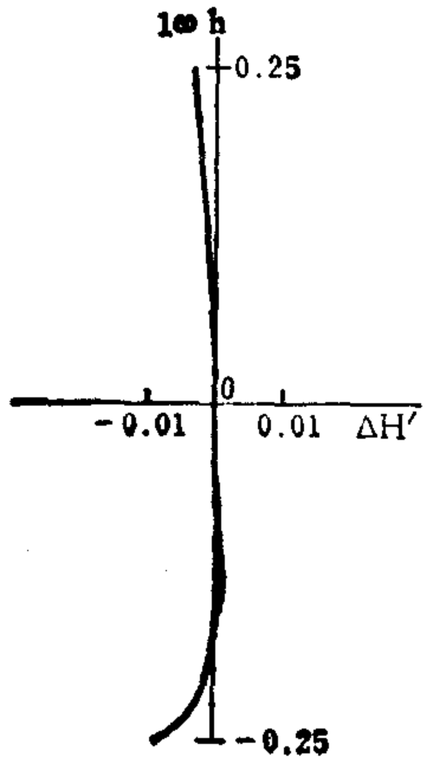


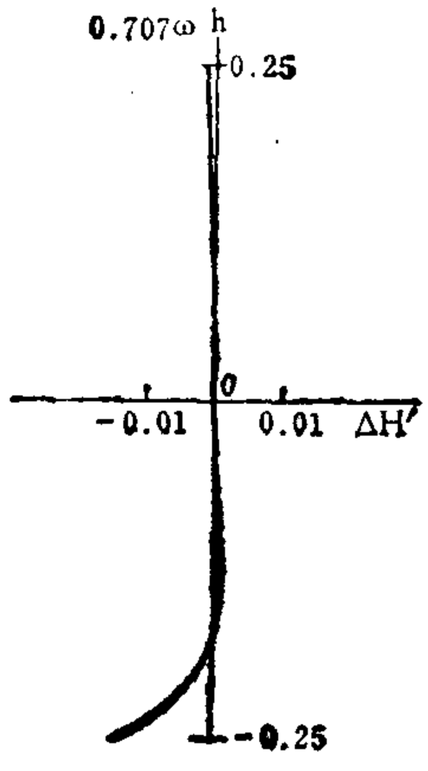
序号	r	d	n	v	序号	r	d	n	v
1	1.7918	0.0714	1.58913	61.11	9	-0.8903	0.1760*		
2	0.8253	0.2436			10	-0.8363	0.0549	1.60342	38.01
3	2.3096	0.1648	1.58913	61.11	11	1.6343	0.1035		
4	-8.4390	0.0467			12	-1.7197	0.0357	1.80518	25.43
5	1.6743	0.0536	1.58913	61.11	13	2.3899	0.1655	1.69350	53.36
6	0.5073	0.2826			14	-0.7910	0.0036		
7	1.1912	0.1289	1.76180	27.11	15	3.7540	0.1362	1.77250	49.57
8	1.6388	0.5948	1.67790	55.33	16	-1.8694			

0.1760* = 0.0500 + 0.1260

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	-0.00258	0.00084	0.00049	-0.00389	-0.00987	0.78	-1.9%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{r_1}'	$K_{r_{0.7}}'$
100	0.00401	-0.0150	-0.0135	0.0027	-0.0162	-0.00594	-0.00069
70	-0.00414	-0.0079	-0.0092	-0.0105	0.0013	-0.00782	-0.00073



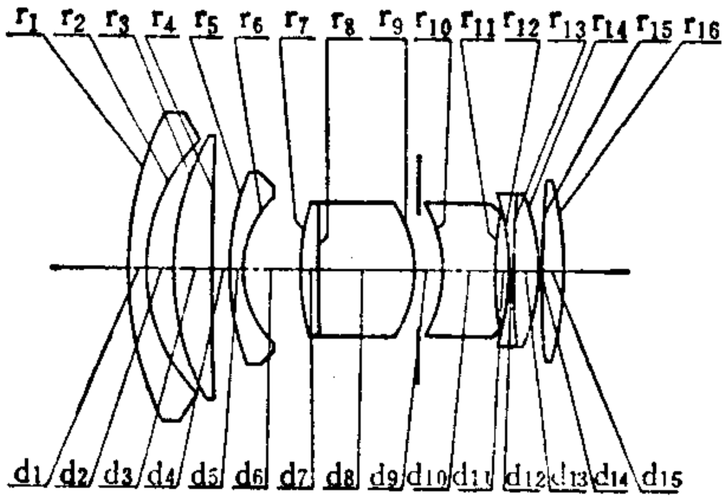




编号：06-00-055

大孔径反远距型广角物镜

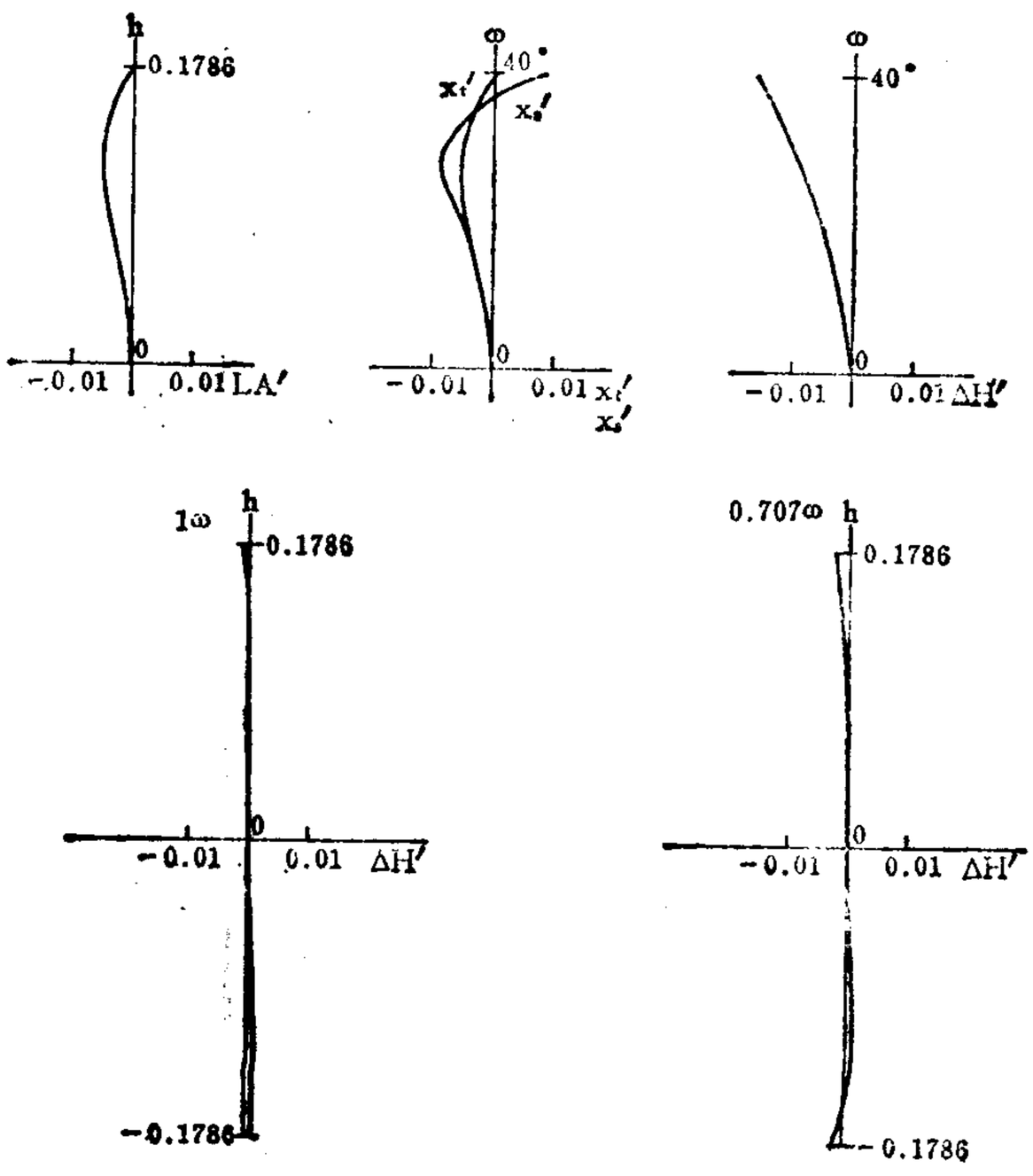
E.F.L＝1　　B.F.L＝1.4364　　FNo.＝2.8　　F.A.＝±40°



序号	r	d	n	v	序号	r	d	n	v
1	1.3861	0.0563	1.66672	48.32	9	−0.7445	0.1070*		
2	0.6942	0.1336			10	−0.9866	0.2268	1.67270	32.10
3	1.3452	0.1542	1.62041	60.27	11	1.6820	0.0507		
4	79.2183	0.0704			12	−1.1886	0.0338	1.80518	25.43
5	1.4517	0.0423	1.67790	55.33	13	3.9876	0.1183	1.77250	49.57
6	0.4317	0.2435			14	−0.7141	0.0042		
7	1.1691	0.0648	1.80518	25.43	15	8.6313	0.0901	1.77250	49.57
8	8.4507	0.4067	1.58913	61.11	16	−1.4342			

0.1070* = 0.0300 + 0.0770

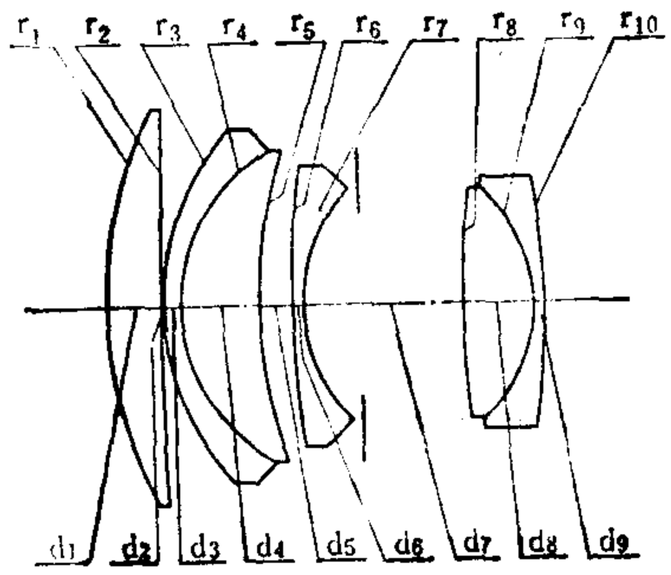
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00109	0.00050	0.00028	−0.00191	−0.00804	0.84	−1.9%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.00042	−0.0162	0.00109	0.00852	−0.00743	−0.00049	0.00025
70	−0.00478	−0.0092	−0.00490	−0.00915	0.00425	−0.00225	−0.00016



编号：06-00-056

照相用大孔径远摄物镜

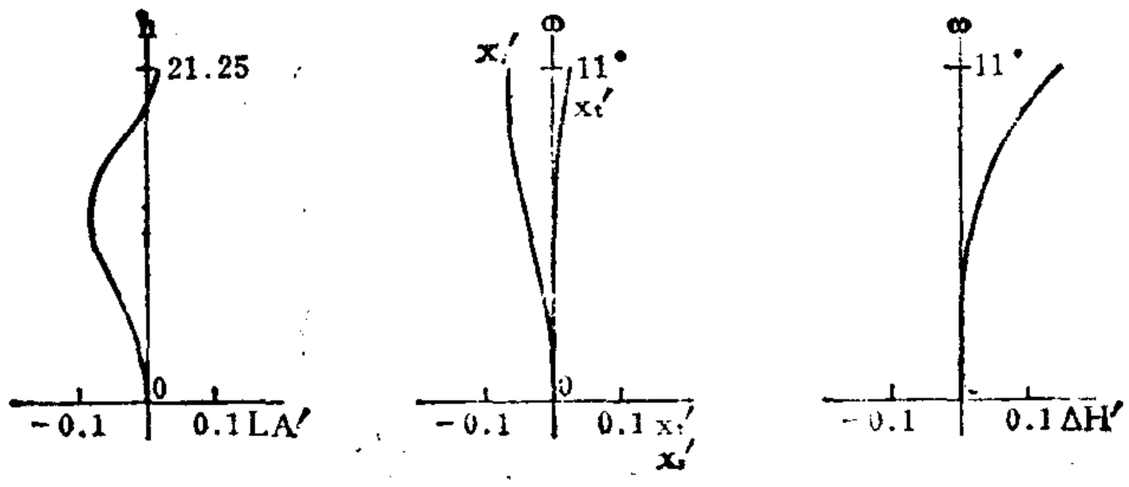
E.F.L＝84.992　　B.F.L＝42.327　　FNo.＝2　　F.A.＝±11°

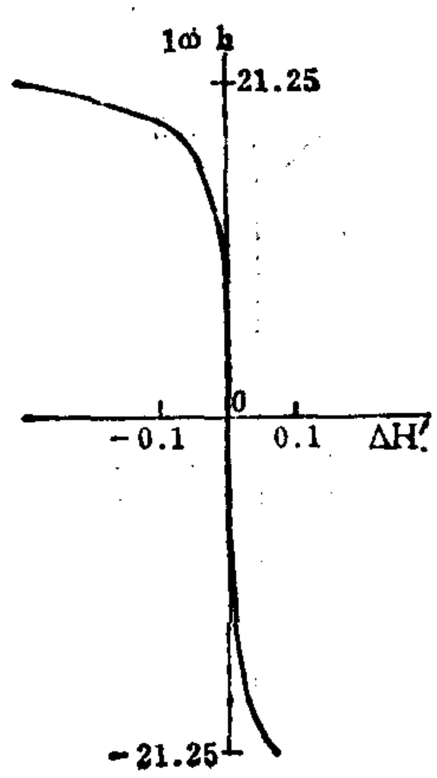


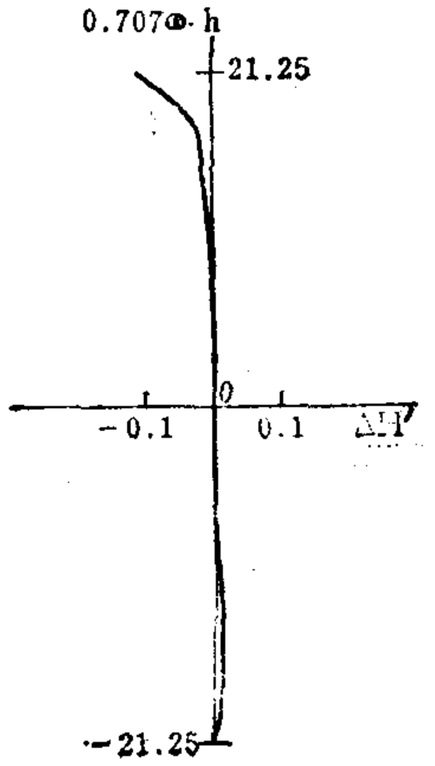
序号	r	d	n	ν	序号	r	d	n	ν
1	47.415	6.24	1.65100	56.15	6	119.915	1.40	1.80518	25.43
2	382.376	0.15			7	18.538	17.50*		
3	29.457	1.80	1.60311	60.70	8	125.044	7.60	1.69700	48.51
4	19.612	8.87	1.69100	54.84	9	− 17.176	0.90	1.62299	58.14
5	53.405	3.60			10	−122.866			

17.50* = 6.00 + 11.50

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.05926	−0.00008	0.00934	−0.02778	0.07711	16.5	0.9%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K'_{T1}	$K'_{T0.7}$
100	0.0125	0.1493	0.0227	−0.0658	0.0885	−0.14052	0.00087
70	−0.0682	0.0543	0.0090	−0.0547	0.0637	−0.05238	−0.09321



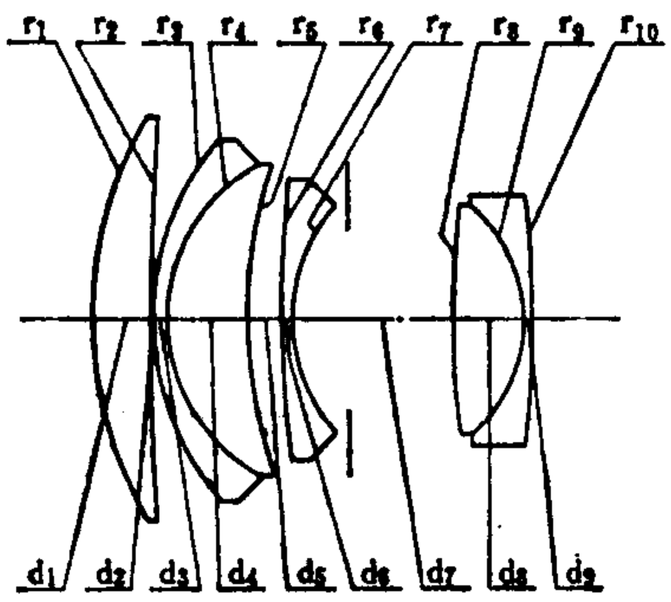




编号：06-00-057

照 相 用 大 孔 径 远 摄 物 镜

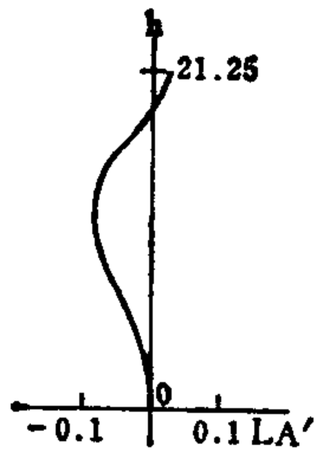
E.F.L＝85.016　　B.F.L＝41.621　　FNo.＝2　　F.A.＝±11°

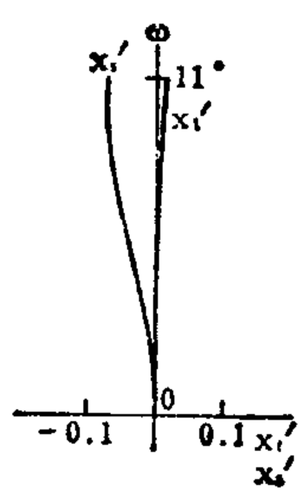


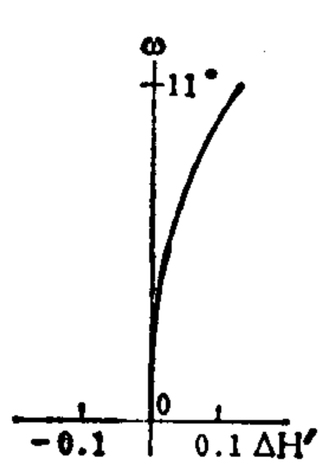
序号	r	d	n	ν	序号	r	d	n	ν
1	44.137	6.28	1.65100	56.15	6	128.926	1.40	1.78470	26.22
2	281.551	0.15			7	18.636	17.78*		
3	30.563	1.80	1.61272	58.75	8	103.353	7.60	1.67790	50.72
4	19.458	8.87	1.69680	56.51	9	−16.802	0.90	1.62041	60.27
5	53.203	3.60			10	−129.614			

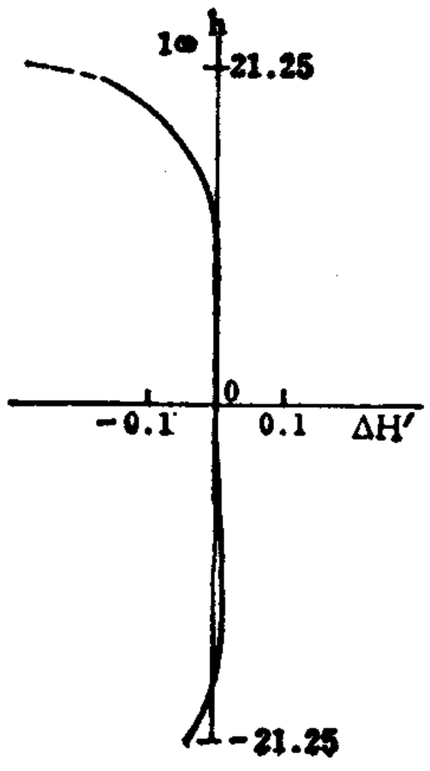
17.78* = 6.00 + 11.78

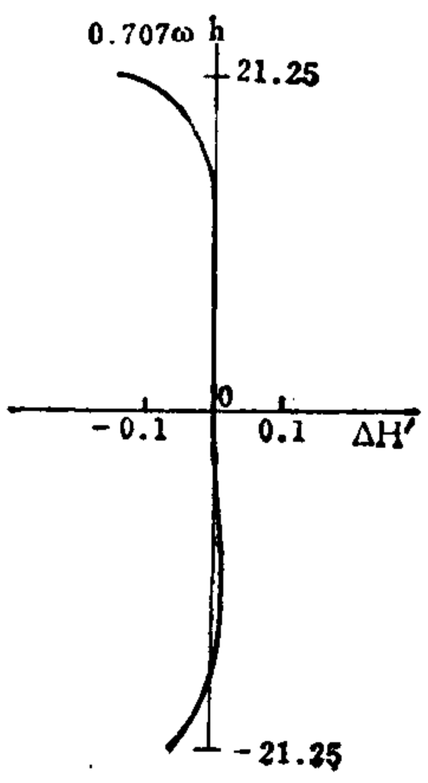
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.06018	0.00406	0.00873	−0.02899	0.07011	16.5	0.78%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.0233	0.1299	0.0165	−0.0756	0.0921	−0.23862	−0.00667
70	−0.0717	0.0484	0.0021	−0.0607	0.0628	−0.11453	−0.00466







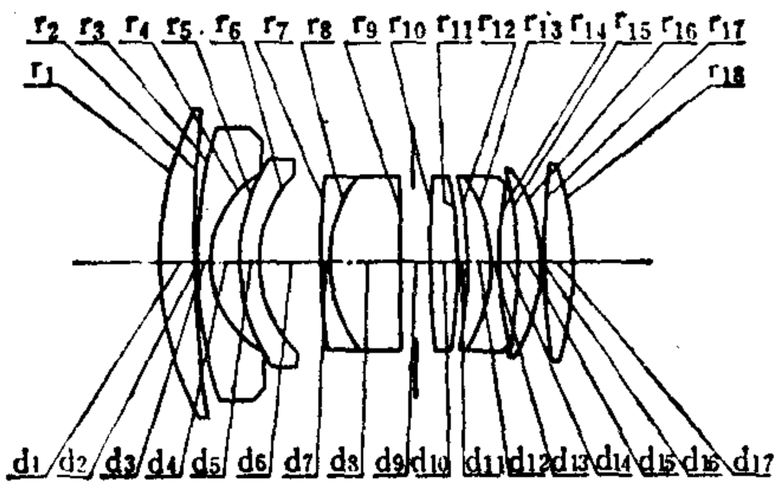




编号：06-00-058

反远距型大孔径广角物镜

E.F.L＝100.7　　**B.F.L＝135.7**　　**FNo.＝2**　　**F.A.＝±38°**

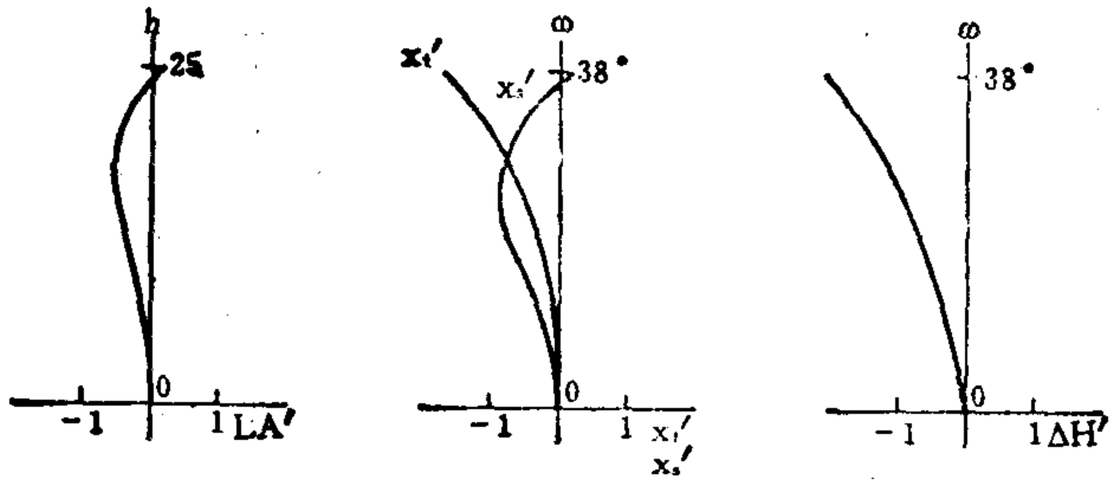


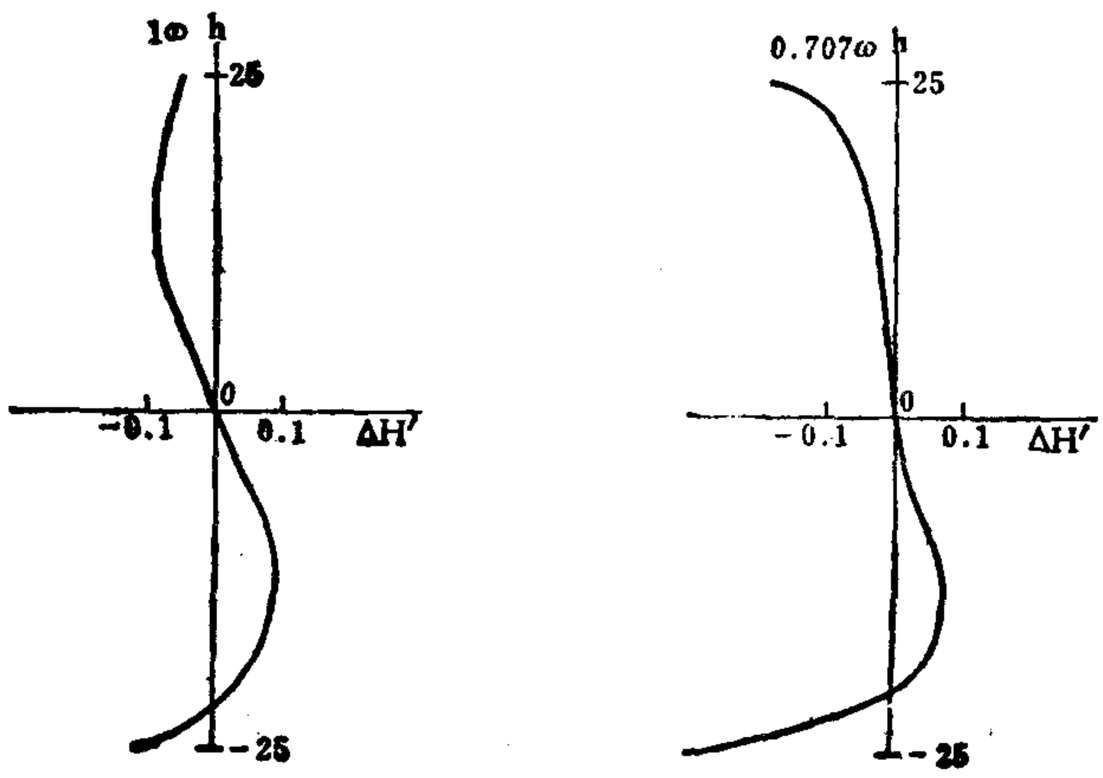
序号	r	d	n	v	序号	r	d	n	v
1	151.207	16.07	1.64000	60.25	10	668.575	10.71	1.80300	46.66
2	636.157	0.54			11	−237.318	4.68		
3	202.764	5.36	1.50378	66.81	12	−180.039	10.71	1.79952	42.28
4	45.236	13.21			13	− 71.889	3.57	1.76182	26.55
5	82.382	7.14	1.50378	66.81	14	187.582	6.86		
6	56.343	27.86			15	−191.364	10.71	1.69680	56.51
7	361.204	3.57	1.50378	66.81	16	− 78.004	0.54		
8	65.501	31.43	1.72000	43.70	17	341.861	12.50	1.69680	56.51
9	∞	12.43*			18	−166.150			

12.43* = 6.00 + 6.43

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.2637	0.1224	0.0015	−0.2996	−1.3465	78.6	−2.6%

h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K'_{r1}	$K'_{r0.7}$
100	0.158	−2.102	−1.695	0.181	−1.876	−0.08198	−0.00832
70	− 0.518	−1.131	−0.654	−0.832	0.178	−0.23736	0.00463

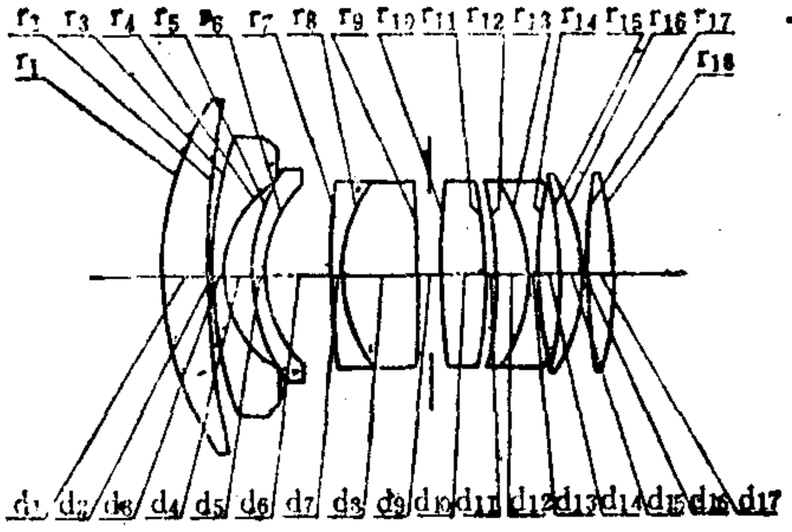




编号：06-00-059

反远距型大孔径广角物镜

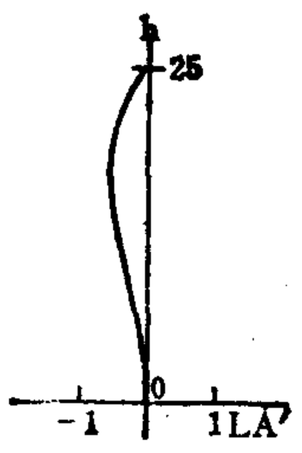
E.F.L＝100　　B.F.L＝135.7　　FNo.＝2　　F.A.＝±38°

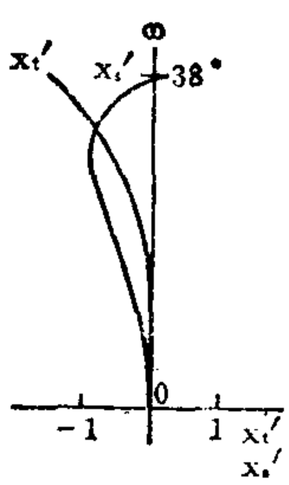


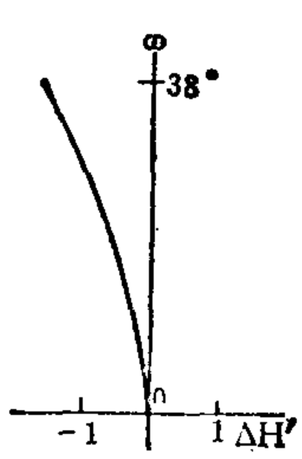
序号	r	d	n	v	序号	r	d	n	v
1	144.988	21.43	1.67000	57.33	10	571.194	18.51	1.78590	44.24
2	506.589	0.54			11	−221.409	4.80		
3	189.399	5.49	1.51633	64.15	12	−185.577	15.53	1.80610	40.80
4	47.830	13.26			13	− 72.443	4.41	1.76182	26.55
5	83.589	5.06	1.61800	63.38	14	184.138	8.49		
6	56.580	29.87			15	−194.800	10.92	1.69680	55.62
7	400.062	4.89	1.50378	66.81	16	−84.600	0.43		
8	68.782	32.54	1.70000	48.08	17	273.484	12.48	1.69680	55.62
9	−13723.579	10.86*			18	−165.053			

10.86* = 5.40 + 5.46

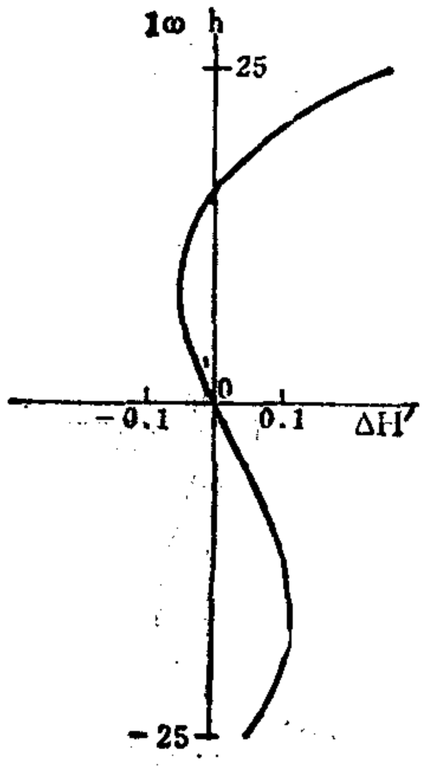
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.2427	0.0549	0.0707	−0.3288	−1.2040	78.1	−2%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.042	−1.616	−1.575	0.253	−1.828	0.1585	0.0752
70	−0.550	−0.957	−0.435	−0.815	0.380	−0.0373	0.0044



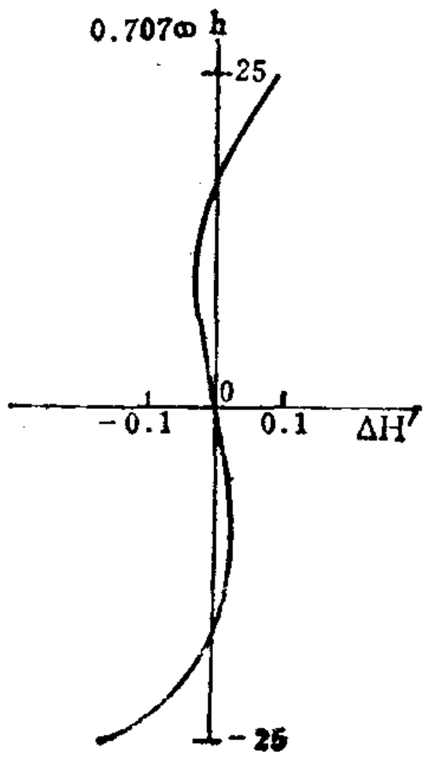




1ω h



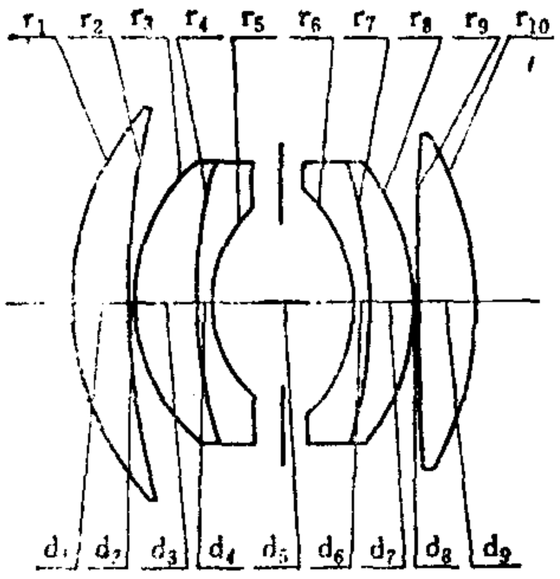
0.707ω h



编号：06-00-060

大 孔 径 摄 影 物 镜

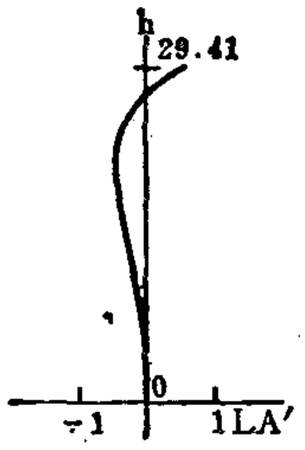
E.F.L＝99.9　　B.F.L＝54.25　　FNo.＝1.7　　F.A.＝±28°

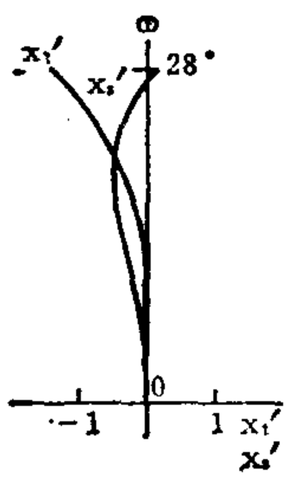


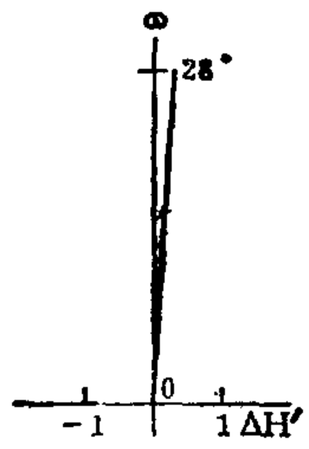
序号	r	d	n	v	序号	r	d	n	v
1	54.663	10.390	1.76200	40.2	6	−28.900	2.268	1.59270	35.4
2	143.610	0.610			7	−89.183	8.585	1.65830	57.2
3	34.229	11.171	1.71700	47.9	8	−42.161	0.390		
4	89.463	2.220	1.76182	26.5	9	1725.853	10.585	1.71700	47.9
5	23.478	26.293*			10	− 62.910			

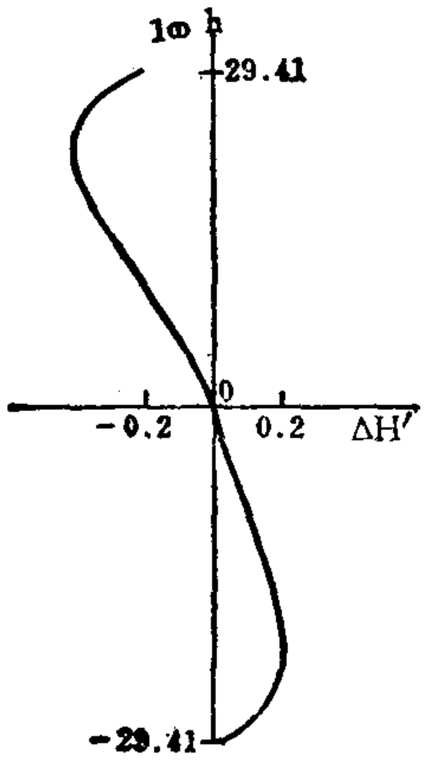
26.293* = 13.150 + 13.143

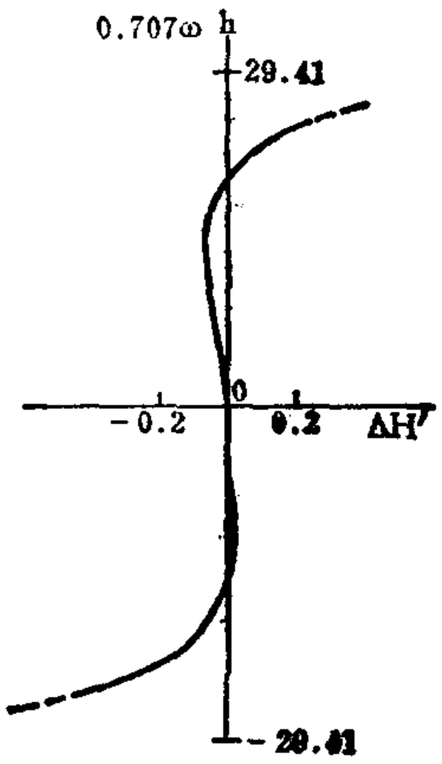
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.2982	0.0231	0.0727	−0.3791	0.4022	53	0.5%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.477	0.2759	−1.399	0.172	−1.571	−0.0854	−0.1058
70	− 0.429	0.2008	−0.352	−0.464	0.112	−0.3499	−0.0437







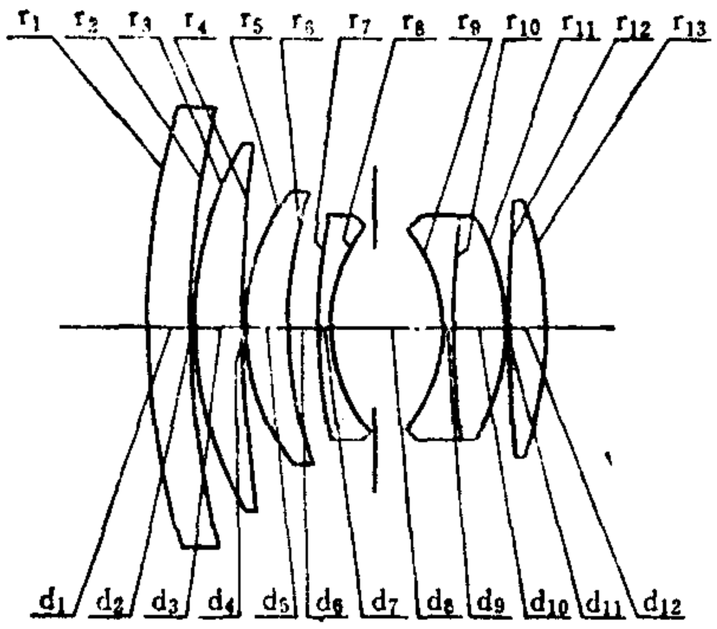




编号：06-00-061

大孔径扩大高斯型摄影物镜

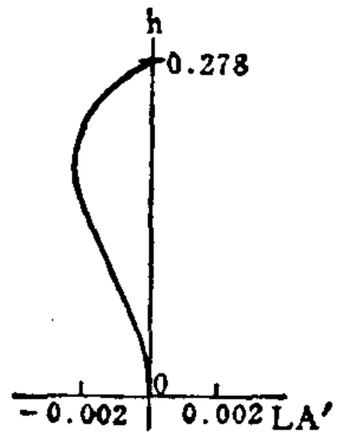
E.F.L＝1　　B.F.L＝0.7097　　FNo.＝1.8　　F.A.＝±22.5°

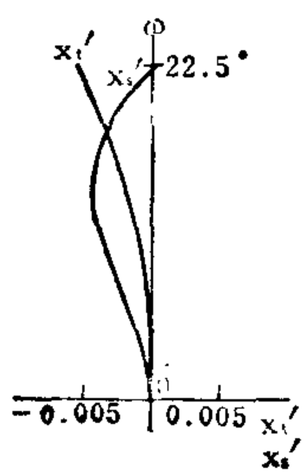


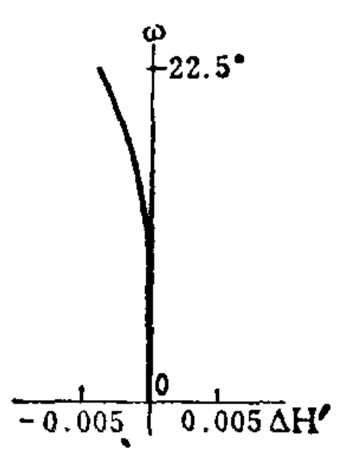
序号	r	d	n	ν	序号	r	d	n	ν
1	1.31010	0.081965	1.50137	56.40	8	0.29955	0.198535*		
2	1.67638	0.001039			9	− 0.28139	0.019274	1.60140	38.23
3	0.68748	0.089236	1.69350	53.35	10	1.91981	0.097911	1.69680	55.43
4	3.15909	0.001000			11	− 0.40228	0.001539		
5	0.40930	0.078598	1.626006	38.96	12	4.22560	0.063113	1.74400	44.77
6	0.74605	0.057900			13	− 0.73871			
7	1.11784	0.020082	1.80508	25.43					

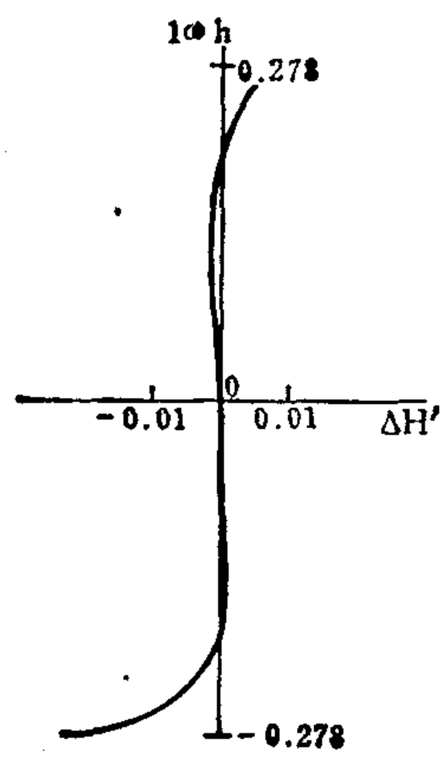
0.198535* = 0.100000 + 0.098535

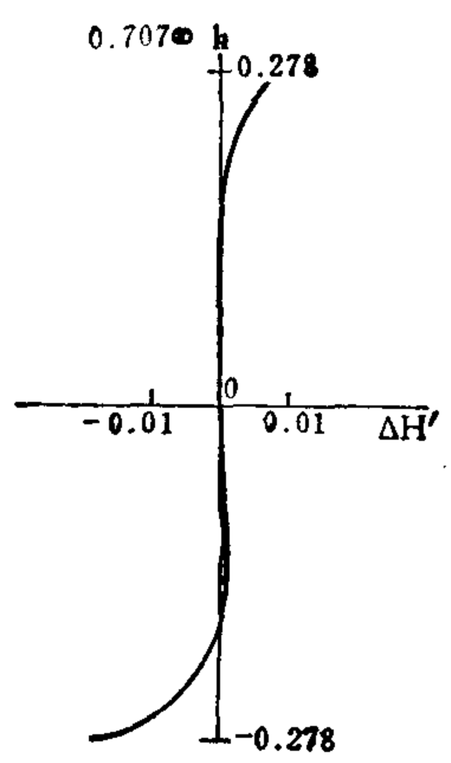
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.001429	0.000308	0.000516	− 0.002707	− 0.000959	0.41	− 0.9%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	− 0.000044	− 0.00393	− 0.00582	0.00031	− 0.00613	− 0.00815	0.00029
70	− 0.00232	− 0.00104	− 0.00253	− 0.00402	0.00149	− 0.00578	0.00006







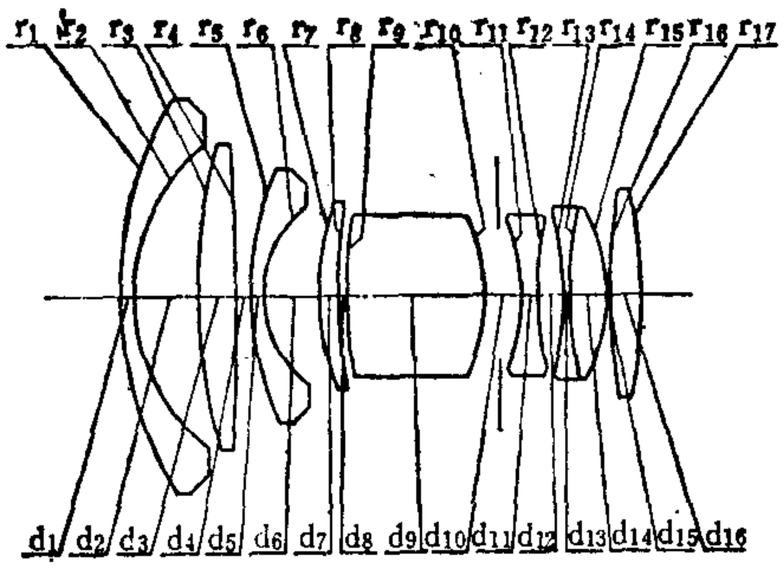




编号：06-00-062

大孔径反远距型广角物镜

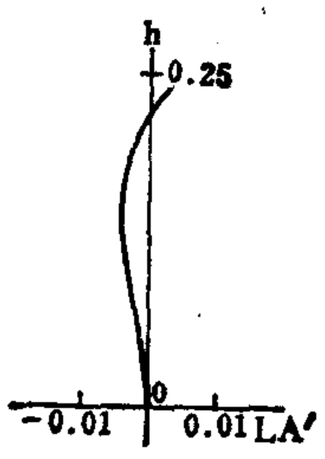
E.F.L＝1　　B.F.L＝1.3348　　FNo.＝2　　F.A.＝±38°

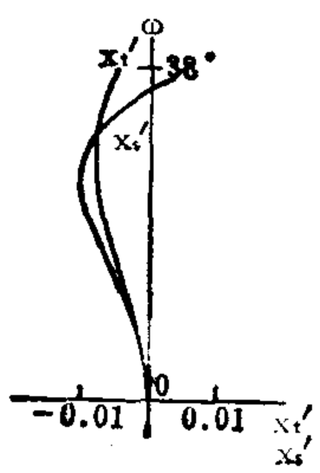


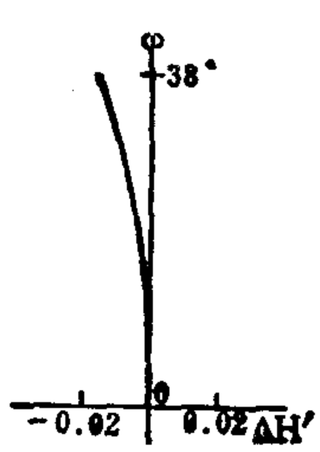
序号	r	d	n	v	序号	r	d	n	v
1	1.7090	0.0707	1.64328	47.85	10	−0.8696	0.1536*		
2	0.8800	0.2743			11	−0.8850	0.0611	1.62004	36.25
3	2.5246	0.1646	1.58913	61.11	12	1.5573	0.1036		
4	−9.0518	0.0661			13	−1.4292	0.0357	1.80518	25.43
5	1.3704	0.0536	1.65100	56.15	14	2.0409	0.1654	1.77250	49.57
6	0.4995	0.2571			15	−0.7961	0.0036		
7	1.1928	0.0821	1.75520	27.51	16	3.2359	0.1361	1.77250	49.57
8	3.4759	0.0357			17	−2.3112			
9	3.6293	0.6179	1.67790	55.33					

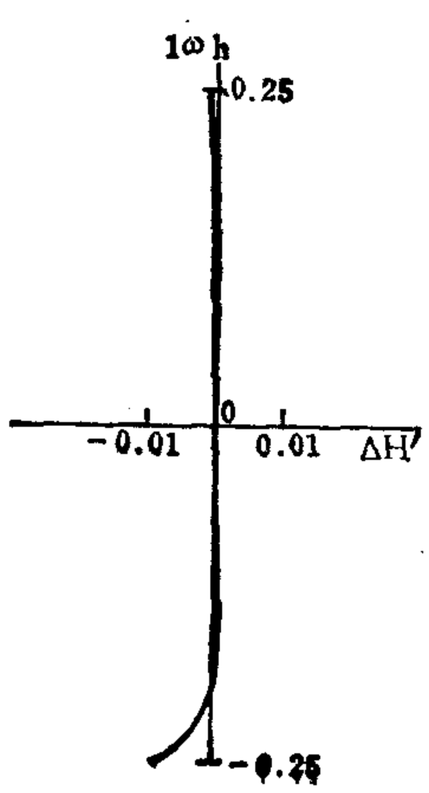
0.1536* = 0.0500 + 0.1036

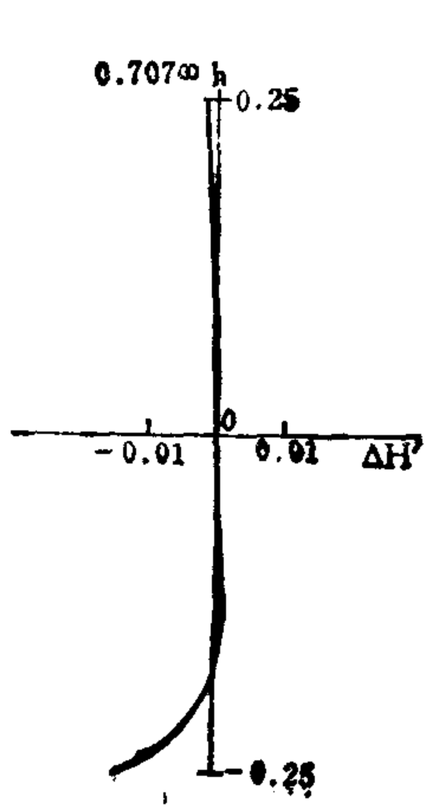
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.002480	0.000858	0.000357	−0.003756	−0.009911	0.78	−2%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}'$
100	0.00460	−0.01678	−0.00466	0.00587	−0.01053	−0.004820	−0.000016
70	−0.00399	−0.00826	−0.00830	−0.00979	0.00149	−0.008228	−0.000616







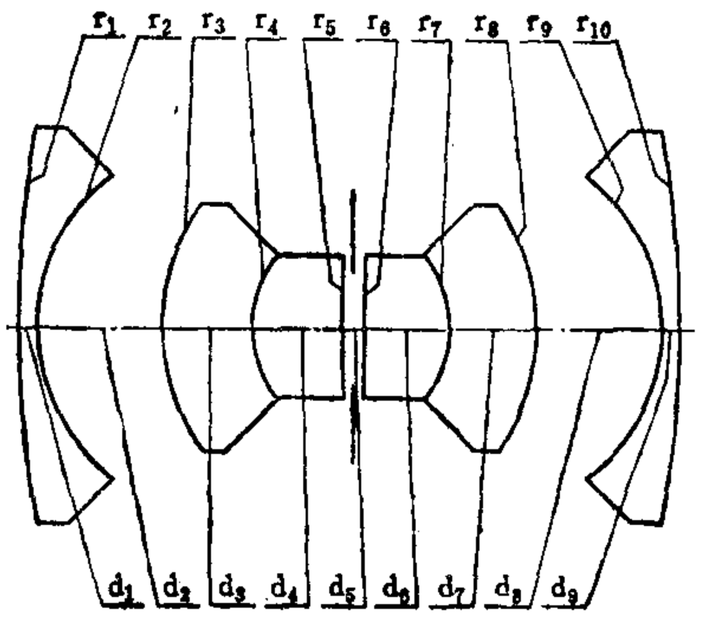




编号：06-02-063

超 广 角 光 学 系 统

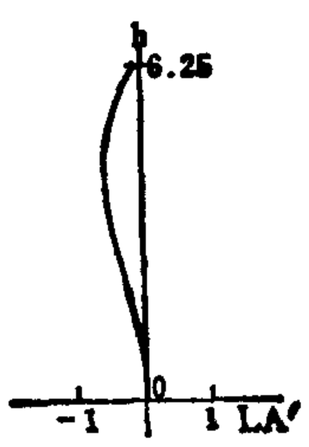
E. F. L＝100　　B. F. L＝73.40　　FNo. ＝8　　F. A. ＝±50°

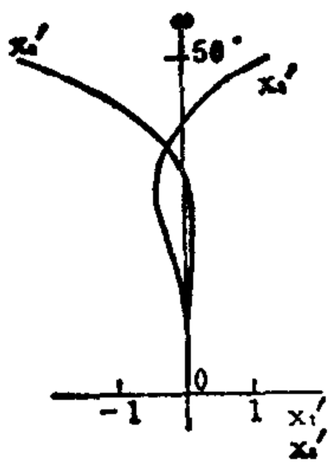


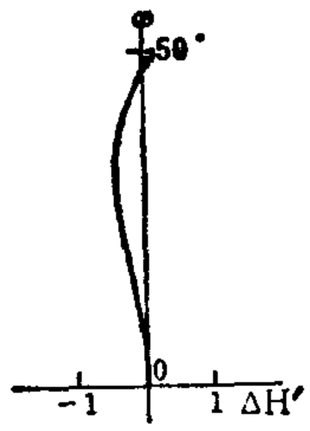
序号	r	d	n	ν	序号	r	d	n	ν
1	183.69	2.17	1.4645	65.7	6	∞	10.18	1.5827	46.5
2	23.06	15.22			7	−14.08	10.84	1.7174	29.5
3	25.57	11.14	1.7174	29.5	8	−26.90	15.22		
4	14.02	10.97	1.5601	47.0	9	−23.31	2.17	1.4645	65.7
5	1045.94	2.57*			10	−298.93			

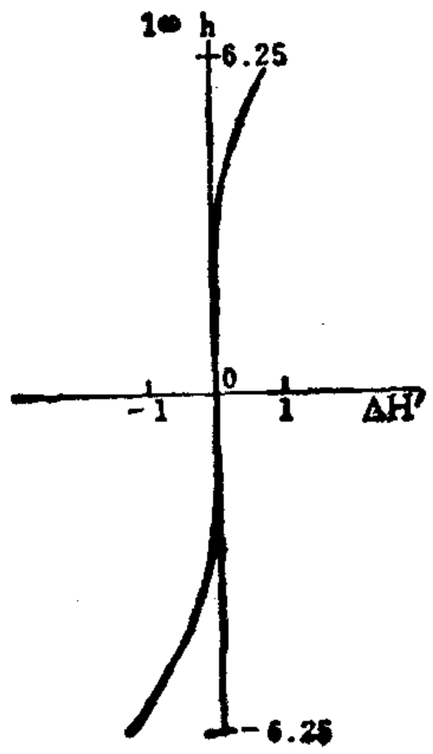
2.570* = 1.285 + 1.285

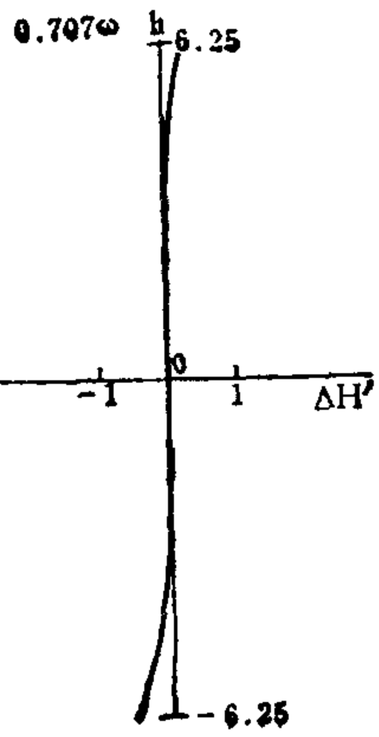
	ΣS1	ΣS2	ΣS3	ΣS4	ΣS5	HI	QP(1ω)
	−0.01304	−0.00772	−0.01127	0.01738	−0.10742	119	0.18%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}	$K_{T0.7}$
100	−0.0700	0.2166	1.2659	−2.4003	3.6662	−0.27444	−0.09990
70	−0.5333	−0.3341	−0.4232	−0.0078	−0.4154	−0.112330	−0.03545







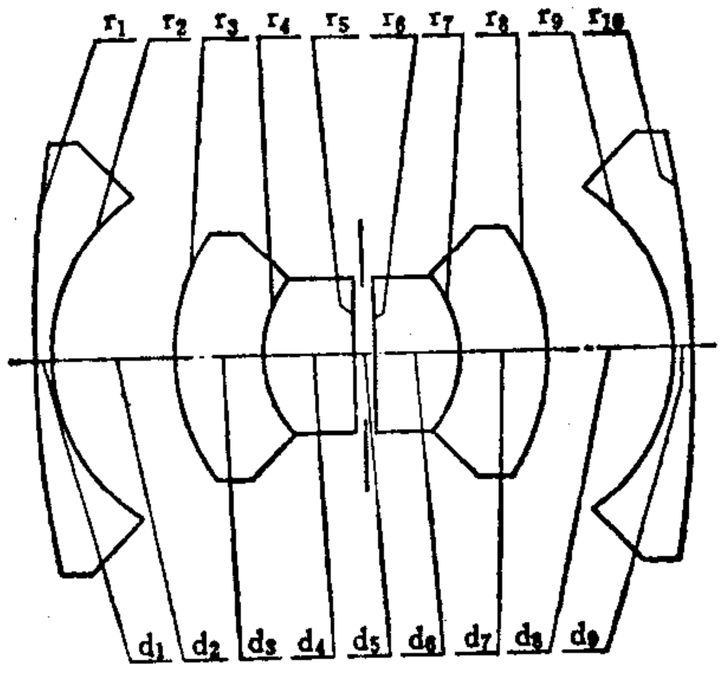




编号：06-02-064

超 广 角 光 学 系 统

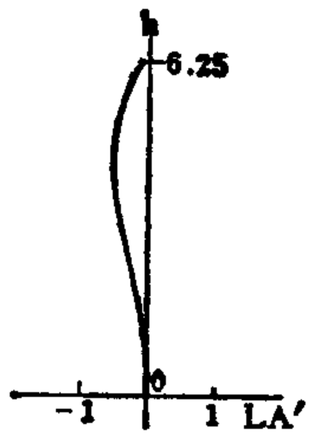
E. F. L＝100.15　　B. F. L＝73.54　　FNo. ＝8　　F. A. ＝±50°

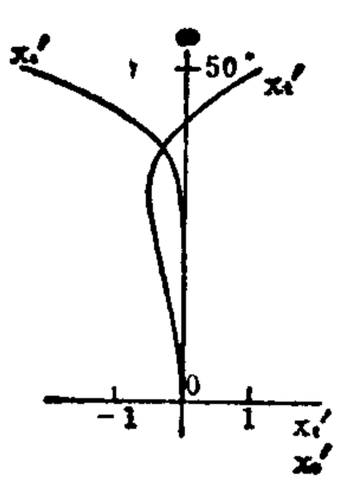


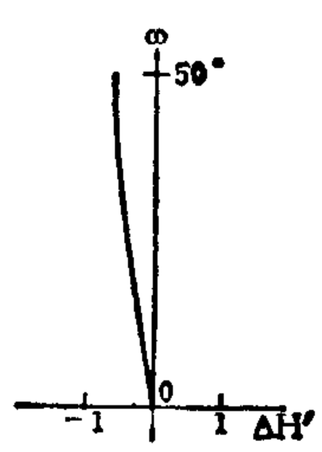
序号	r	d	n	ν	序号	r	d	n	ν
1	185.39	2.19	1.4645	65.7	6	∞	10.27	1.5827	46.5
2	23.27	15.36			7	−14.21	10.94	1.7174	29.5
3	25.81	11.24	1.7174	29.5	8	−27.15	15.36		
4	14.15	11.07	1.5601	47.0	9	−23.52	2.19	1.4645	65.7
5	1055.59	2.59*			10	−279.10			

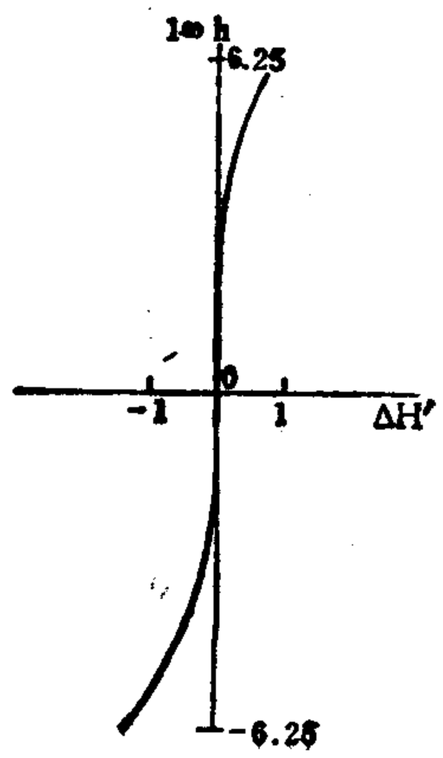
2.590* = 1.295 + 1.295

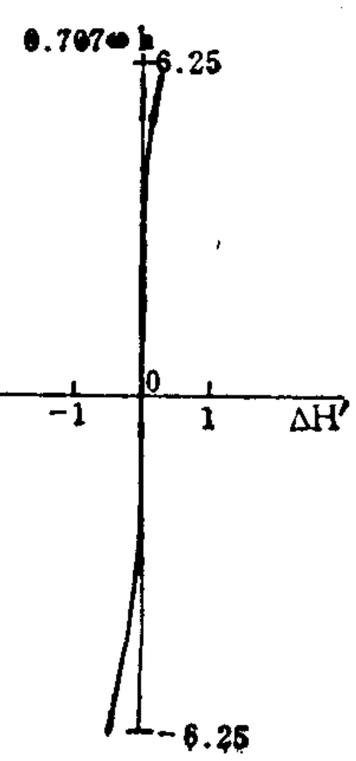
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.01256	−0.00725	−0.01053	0.01545	−0.12792	119	−0.47%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t - x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.09064	−0.5672	1.0415	−2.5159	3.5574	−0.24065	−0.08523
70	−0.51767	−0.4769	−0.4789	−0.1196	−0.3593	−0.09961	−0.03015







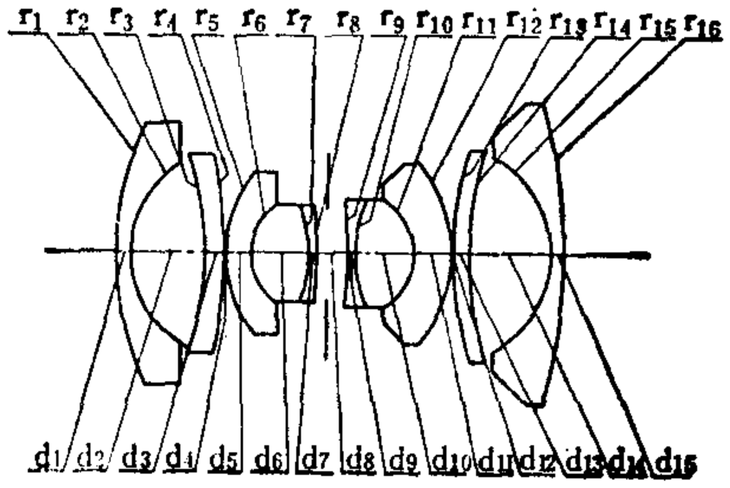




编号：06-02-065

广　角　物　镜

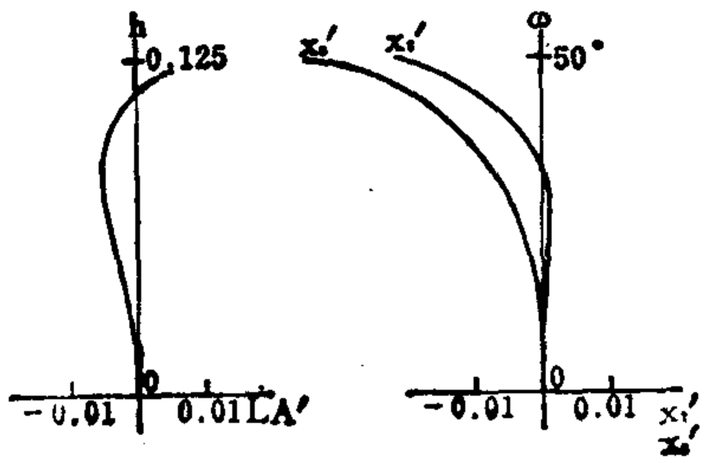
E. F. L＝1　　B. F. L＝0.399　　FNo. ＝4　　F. A. ＝±50°

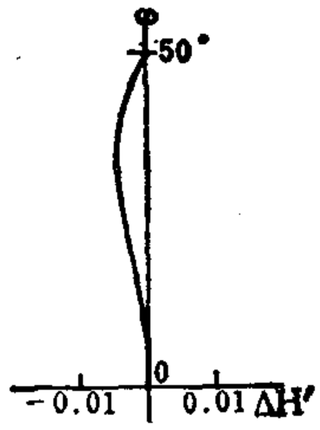


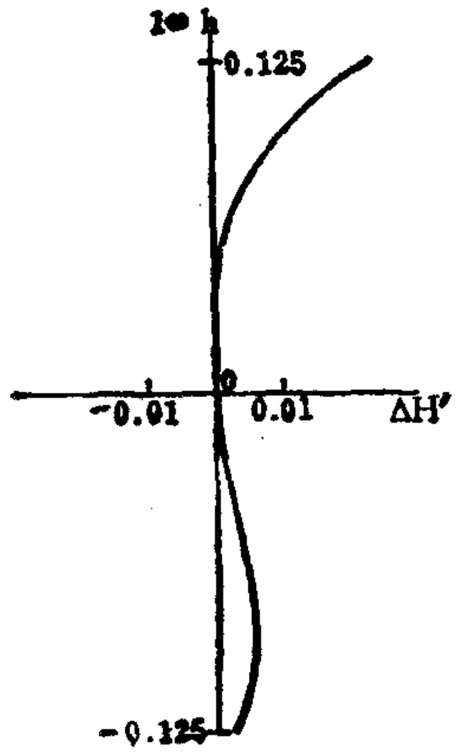
序号	r	d	n	v	序号	r	d	n	v
1	1.328	0.061	1.56384	60.8	9	−3.944	0.039	1.53172	48.9
2	0.461	0.333			10	0.539	0.256	1.61847	50.4
3	−1.269	0.083	1.51454	54.6	11	−0.272	0.172	1.72151	29.0
4	−1.944	0.006			12	−0.611	0.006		
5	0.558	0.117	1.72000	50.3	13	1.533	0.078	1.51680	64.2
6	0.261	0.256	1.61762	52.7	14	1.589	0.361		
7	−0.606	0.033	1.53256	46.0	15	−0.478	0.044	1.55823	67.8
8	−8.333	0.139*			16	−2.482			

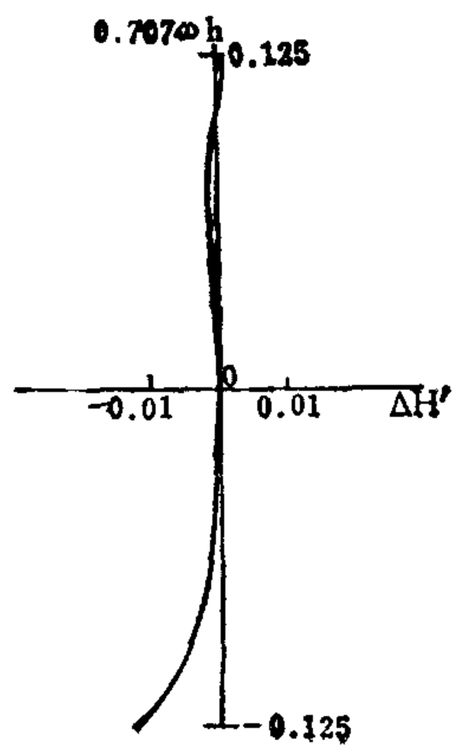
0.139* = 0.05 + 0.089

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.000690	−0.001188	−0.000451	−0.000307	−0.002931	1.18	0.04%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.00910	0.00049	−0.02268	−0.03487	0.01219	0.01258	0.00634
70	−0.00542	−0.00446	0.00105	−0.00859	0.00964	−0.00549	−0.00210





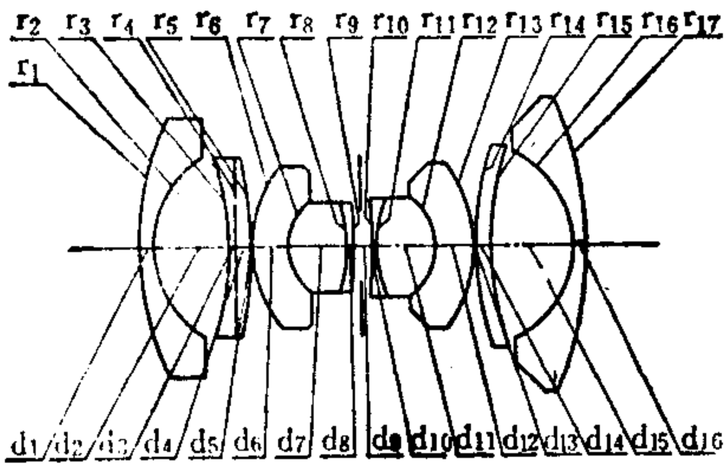




编号：06-02-066

广　角　物　镜

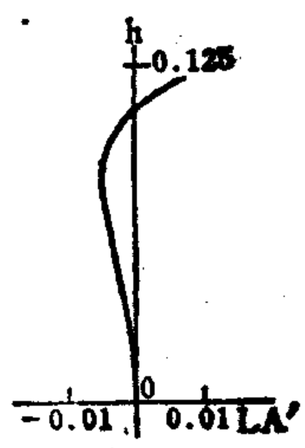
E. F. L＝1　　B. F. L＝0.406　　FNo. ＝4　　F. A. ＝±50°

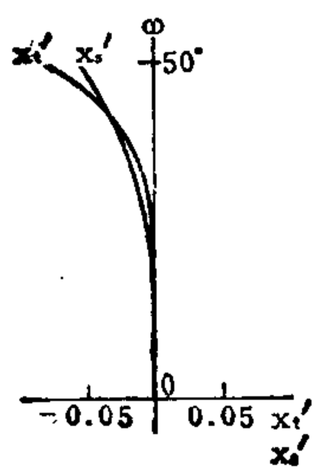


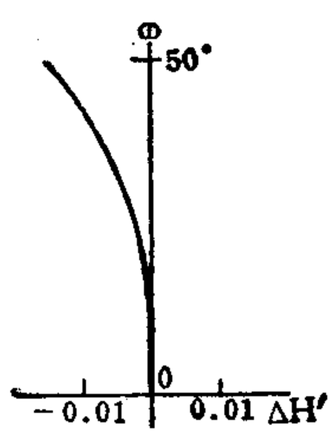
序号	r	d	n	v	序号	r	d	n	v
1	1.326	0.067	1.55671	58.6	10	−3.946	0.025	1.53172	48.9
2	0.459	0.331			11	0.536	0.259	1.61762	52.7
3	−1.267	0.027	1.51454	54.6	12	−0.272	0.172	1.72151	29.3
4	∞	0.060	1.51680	64.2	13	−0.612	0.005		
5	−1.942	0.001			14	1.421	0.076	1.51680	64.2
6	0.558	0.165	1.72000	50.3	15	1.370	0.364		
7	0.255	0.259	1.61847	50.4	16	−0.458	0.044	1.55823	67.8
8	−0.605	0.025	1.53256	46.0	17	−1.750			
9	−7.333	0.084*							

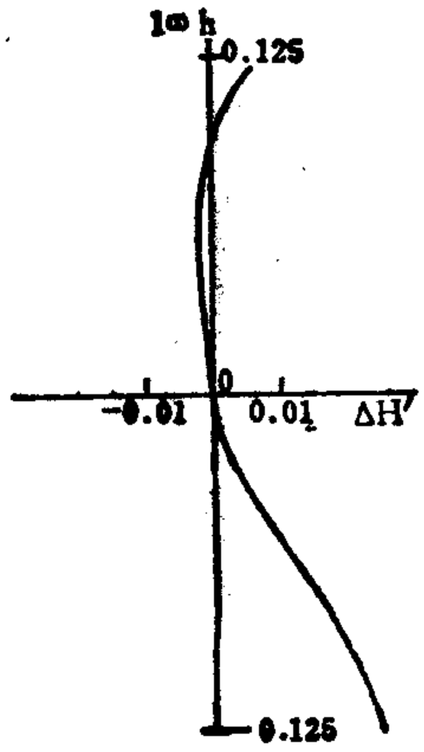
0.084* = 0.030 + 0.054

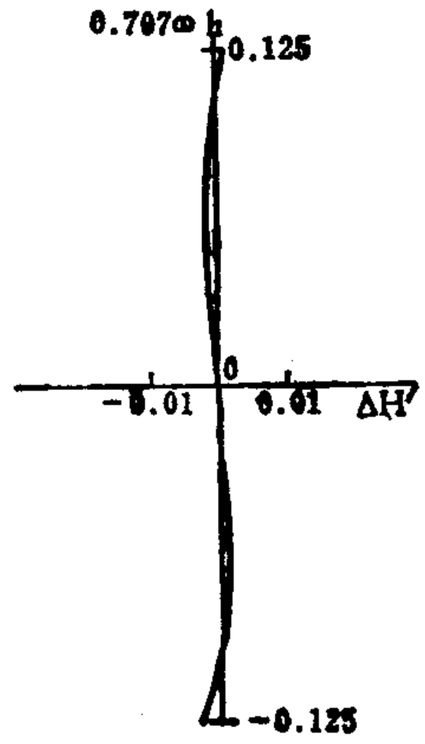
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.000618	−0.000698	−0.000216	−0.000437	−0.002661	1.19	−1.2%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.01098	−0.01492	−0.0816	−0.0568	−0.0248	0.01573	0.00821
70	−0.00437	−0.00539	−0.0118	−0.0149	0.0031	−0.00089	0.00011







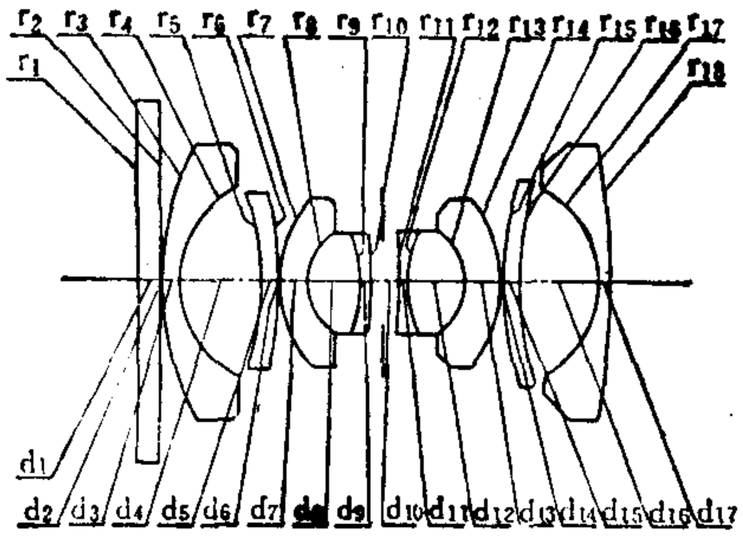




编号：06-02-067

广　角　物　镜

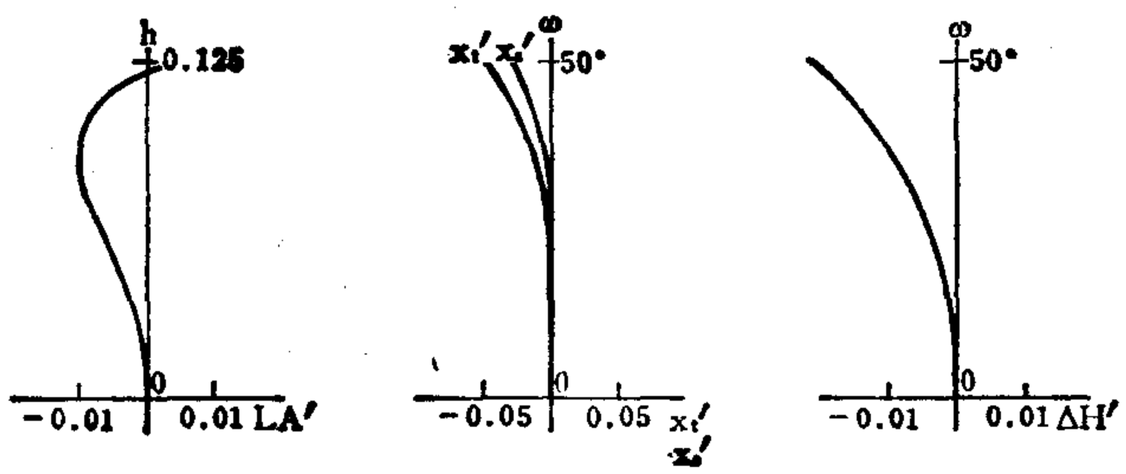
E. F. L＝1　　B. F. L＝0.423　　FNo. ＝4　　F. A. ＝±50°

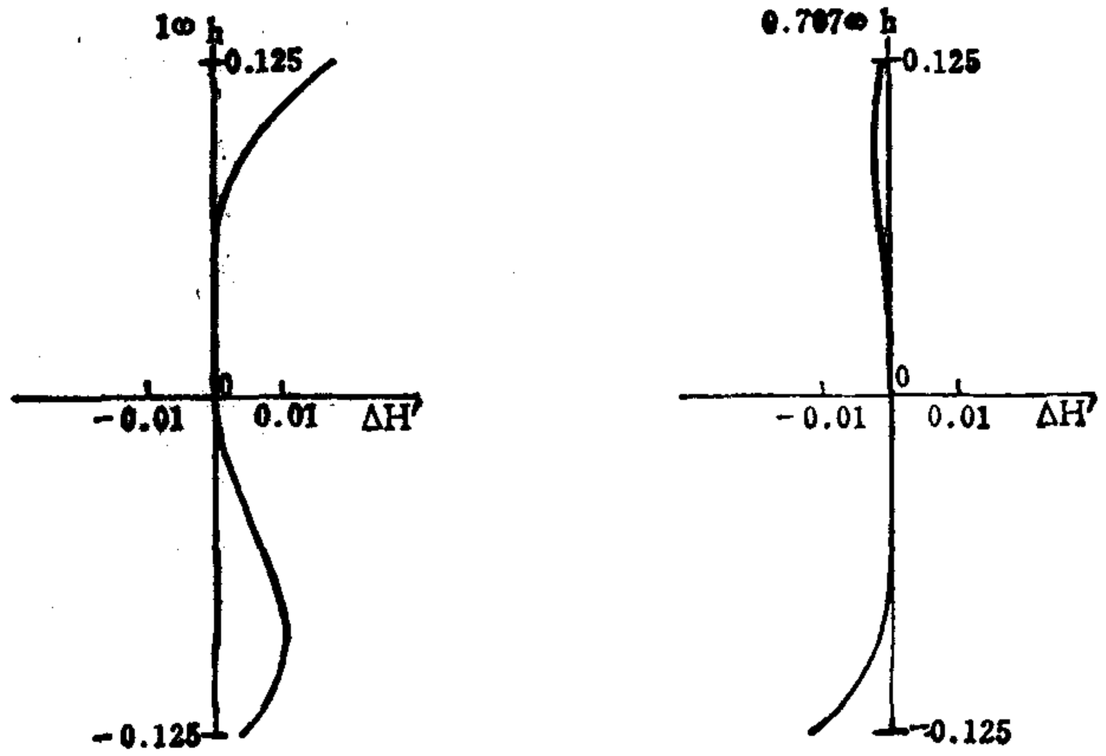


序号	r	d	n	v	序号	r	d	n	v
1	−11.892	0.103	1.62041	60.0	10	−10.270	0.130*		
2	−19.459	0.005			11	−3.892	0.043	1.52944	51.7
3	1.314	0.076	1.56384	61.0	12	0.524	0.243	1.62012	49.8
4	0.454	0.351			13	−0.270	0.163	1.72825	28.4
5	−1.222	0.081	1.51680	64.2	14	−0.595	0.005		
6	−1.865	0.005			15	1.492	0.076	1.51454	54.5
7	0.543	0.119	1.72000	50.3	16	1.560	0.351		
8	0.257	0.232	1.61405	55.0	17	−0.468	0.043	1.56384	61.0
9	−0.584	0.043	1.53172	49.0	18	−3.539			

0.130* = 0.050 + 0.080

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.001043	−0.001512	−0.001376	0.000254	−0.004706	1.19	−1.8%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K'_{T1}	$K'_{T0.7}$
100	0.00538	−0.02182	−0.04677	−0.02781	−0.01896	0.01062	0.00638
70	−0.00997	−0.00818	−0.00591	−0.00264	−0.00327	−0.00640	−0.00216

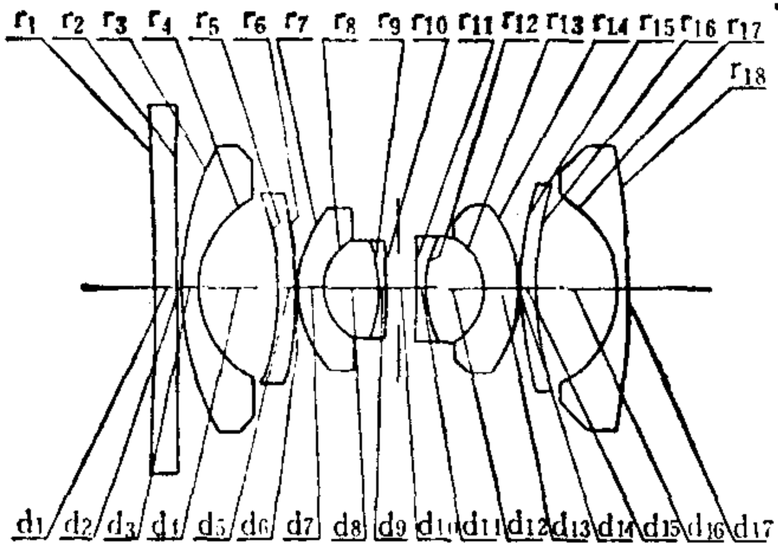




编号：06-02-068

广　角　物　镜

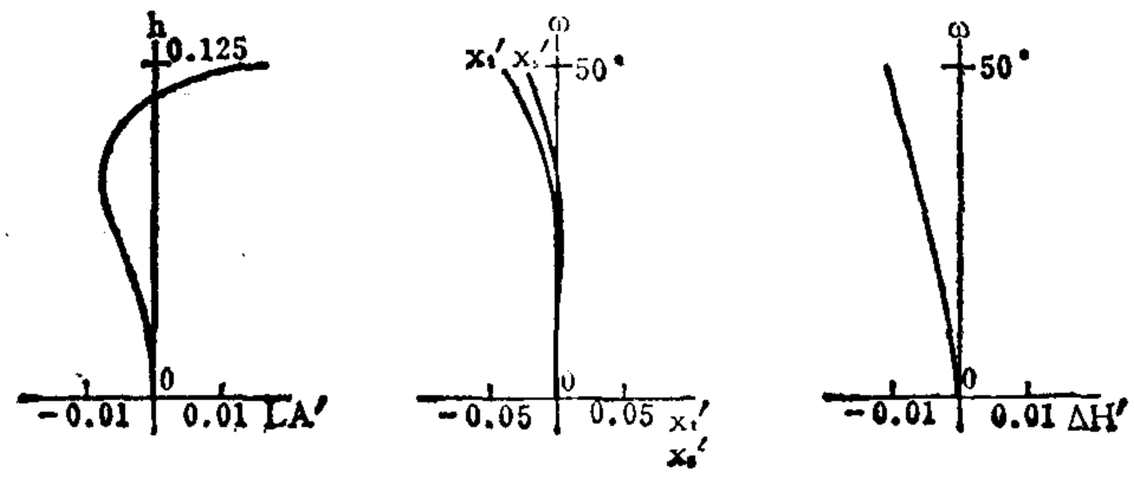
E. F. L＝1　　**B. F. L＝0. 427**　　**FNo. ＝4**　　**F. A. ＝±50°**

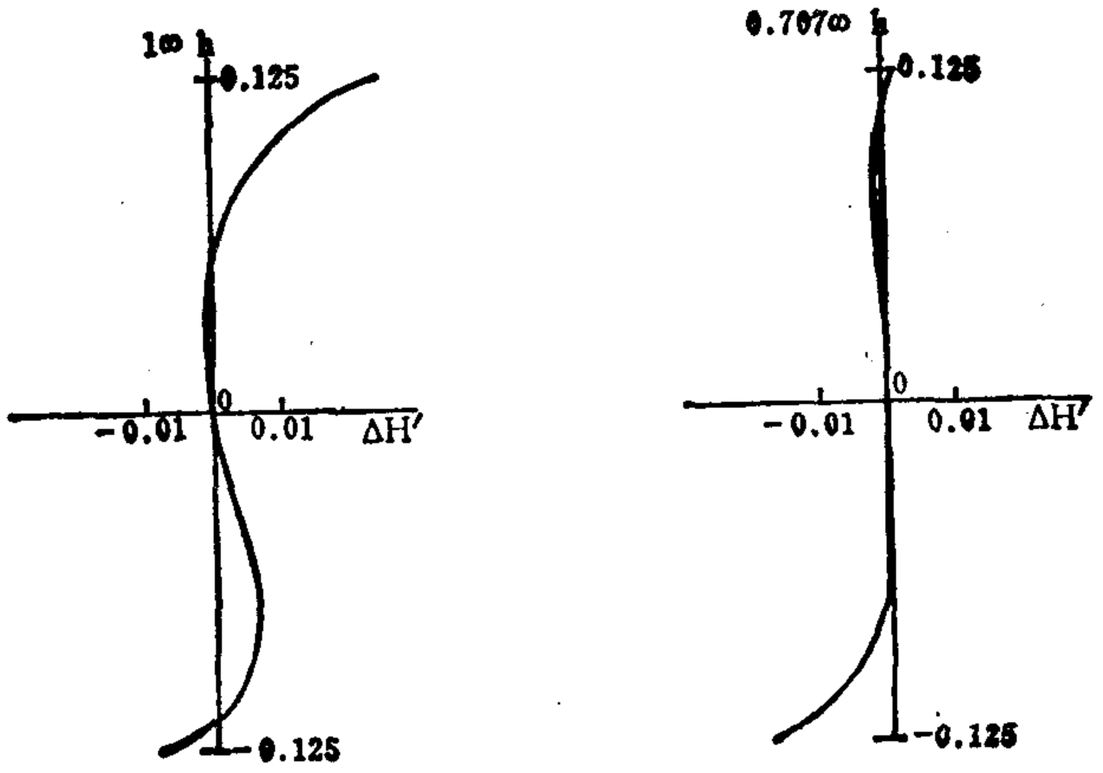


序号	r	d	n	v	序号	r	d	n	v
1	−10.810	0.103	1.62012	49.8	10	− 8.108	0.130*		
2	−21.622	0.005			11	− 3.838	0.038	1.53172	48.9
3	1.314	0.081	1.56384	60.8	12	0.524	0.249	1.61847	50.4
4	0.449	0.351			13	− 0.264	0.163	1.72151	29.0
5	− 1.232	0.081	1.51454	54.6	14	− 0.595	0.005		
6	− 1.892	0.005			15	1.492	0.076	1.51680	64.2
7	0.543	0.114	1.72000	50.3	16	1.546	0.351		
8	0.254	0.243	1.61762	52.7	17	− 0.466	0.043	1.55823	67.8
9	− 0.589	0.032	1.53256	46.0	18	− 4.457			

0.130* = 0.050 + 0.080

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00097	−0.00158	−0.00162	0.00050	−0.00455	1.19	−0.9%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}	$K_{0.7}$
100	0.01585	−0.0111	−0.0431	−0.0238	−0.0193	0.00819	0.00574
70	−0.00771	−0.0067	−0.0042	0.0011	−0.0053	−0.00795	−0.00269

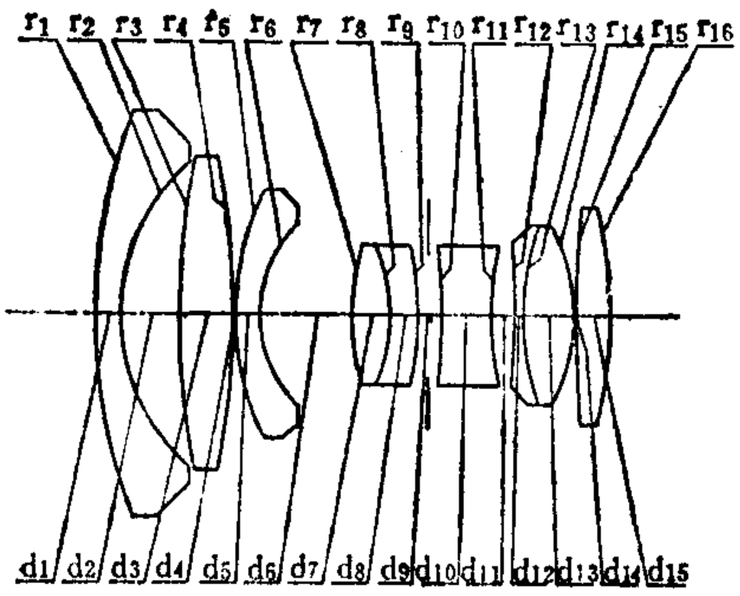




编号：06-02-069

反远距型广角物镜

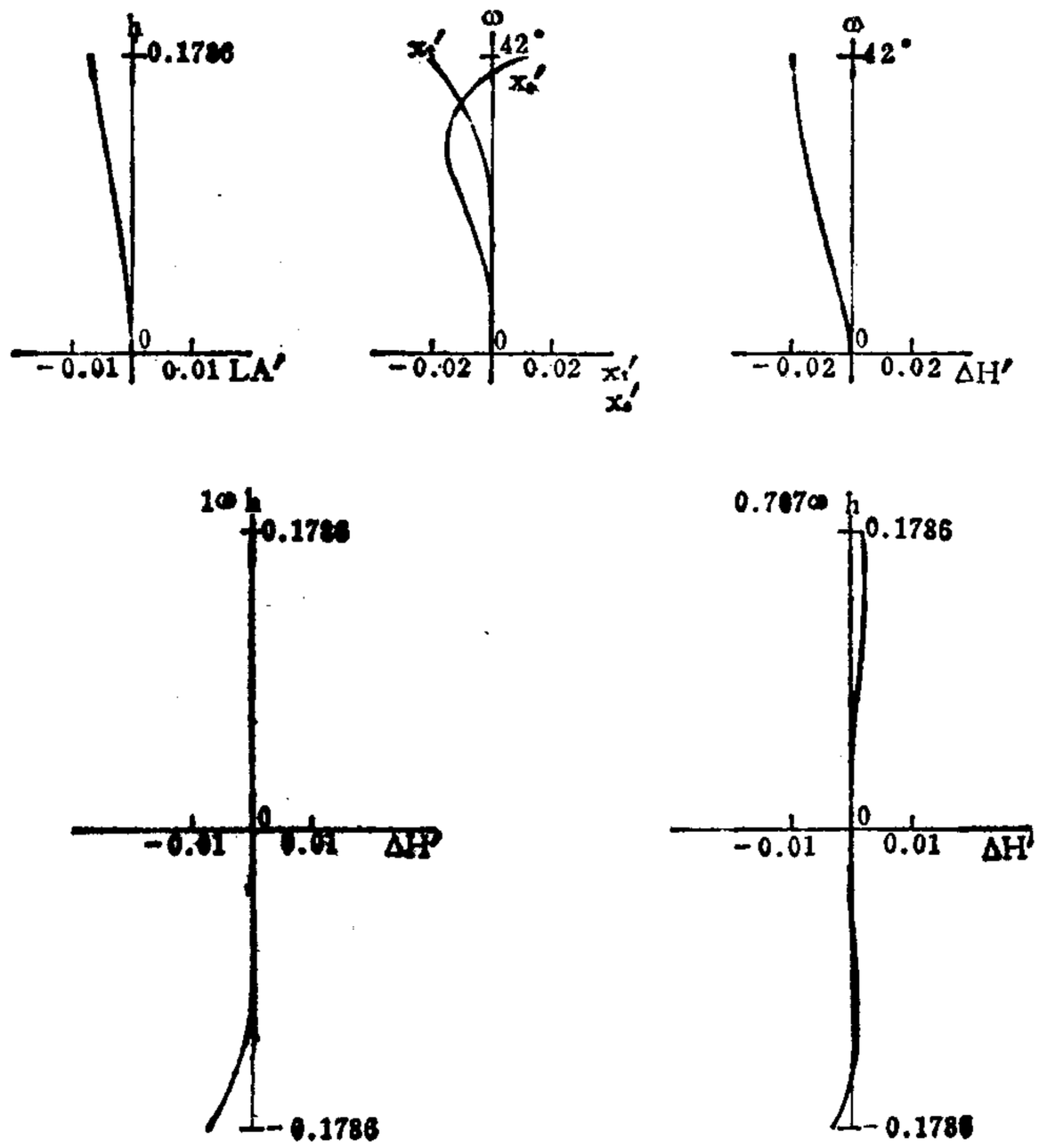
E. F. L＝1　　B. F. L＝1.5598　　FNo. ＝2.8　　F. A. ＝±42°



序号	r	d	n	ν	序号	r	d	n	ν
1	2.5000	0.1125	1.62041	60.3	9	−1.4542	0.1042*		
2	0.8958	0.2625			10	−3.5417	0.2208	1.78470	26.1
3	3.7500	0.2292	1.62041	60.3	11	1.3500	0.0979		
4	−3.7500	0.0042			12	−5.0000	0.0417	1.78470	26.1
5	1.2500	0.1125	1.62041	60.3	13	1.1729	0.2250	1.62041	60.3
6	0.4583	0.4083			14	−0.8333	0.0042		
7	1.0521	0.1667	1.62004	36.3	15	8.0000	0.1458	1.74400	44.9
8	−0.7742	0.1250	1.51823	59.0	16	−1.9423			

0.1042* = 0.0400 + 0.0642

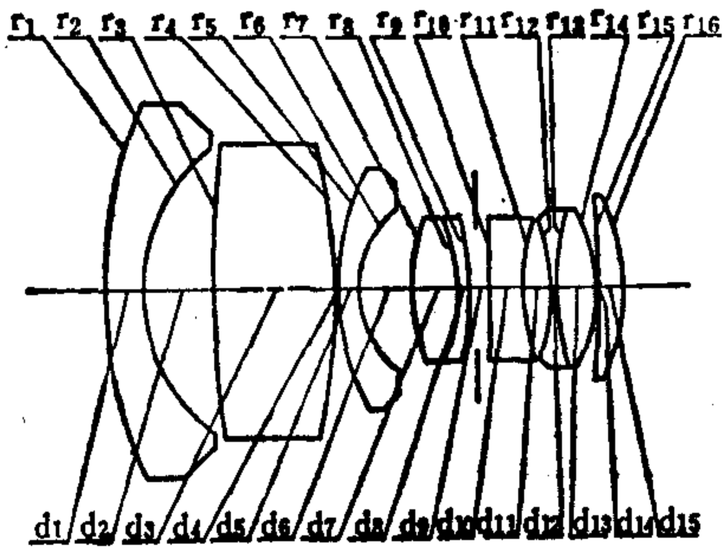
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.000958	0.001143	0.000558	−0.002843	−0.012668	0.9	−2.1%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.00689	−0.0195	−0.0229	0.0107	−0.0336	−0.00341	−0.00113
70	−0.00495	−0.0148	−0.0034	−0.0138	0.0104	−0.00038	0.00109



编号：06-02-070

反远距型广角物镜

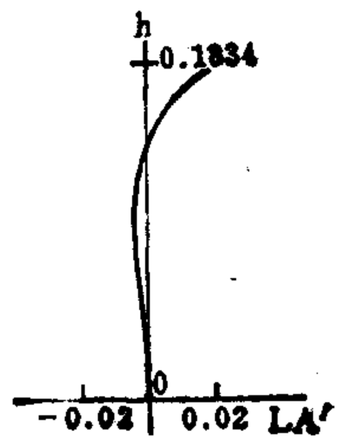
E.F.L=1.027　　B.F.L=1.548　　FNo.=2.8　　F.A.=±40°

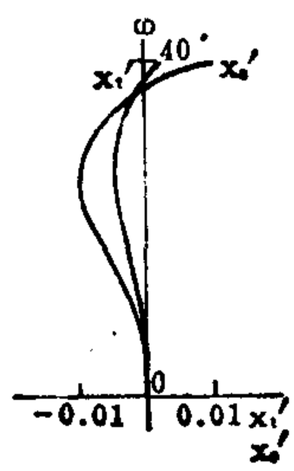


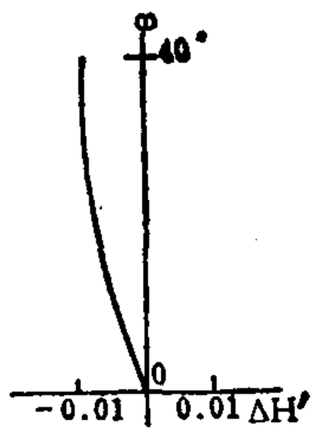
序号	r	d	n	ν	序号	r	d	n	ν
1	2.0873	0.180	1.62041	60.3	9	−1.4709	0.088*		
2	0.7842	0.300			10	−40.0000	0.160	1.51823	59.0
3	4.6000	0.552	1.62280	56.9	11	0.9280	0.112		
4	−2.9420	0.004			12	−0.9200	0.028	1.78470	26.1
5	1.1160	0.092	1.58913	61.2	13	1.1768	0.180	1.66790	55.5
6	0.4520	0.232			14	−0.7440	0.004		
7	0.8400	0.200	1.57501	41.3	15	−8.8000	0.104	1.76684	46.2
8	−0.8400	0.054	1.56248	50.9	16	−0.9616			

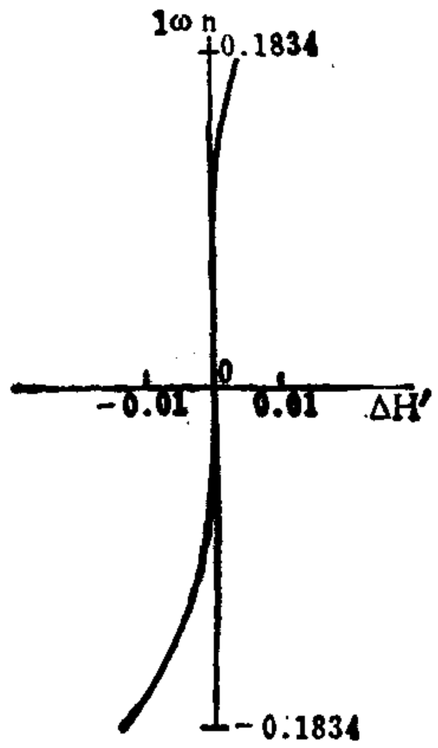
0.088* = 0.030 + 0.058

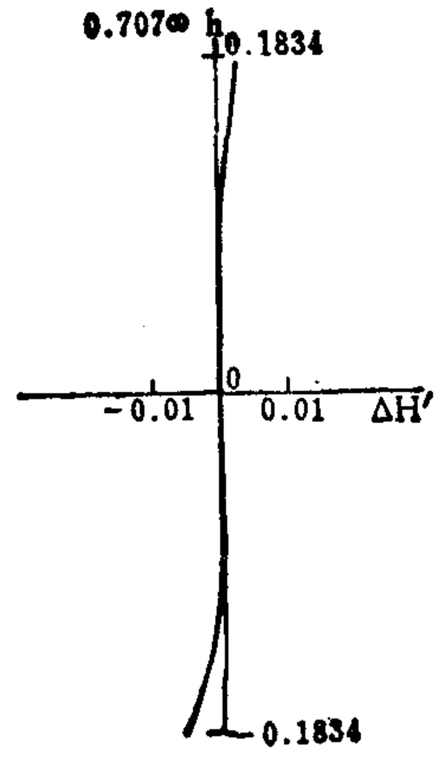
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.001349	0.000067	0.000416	−0.002212	−0.008422	0.86	−1%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.0230	−0.0089	0.00207	0.01208	−0.01001	−0.00463	−0.00164
70	−0.0017	−0.0088	−0.00500	−0.01067	0.00567	−0.00198	−0.00032







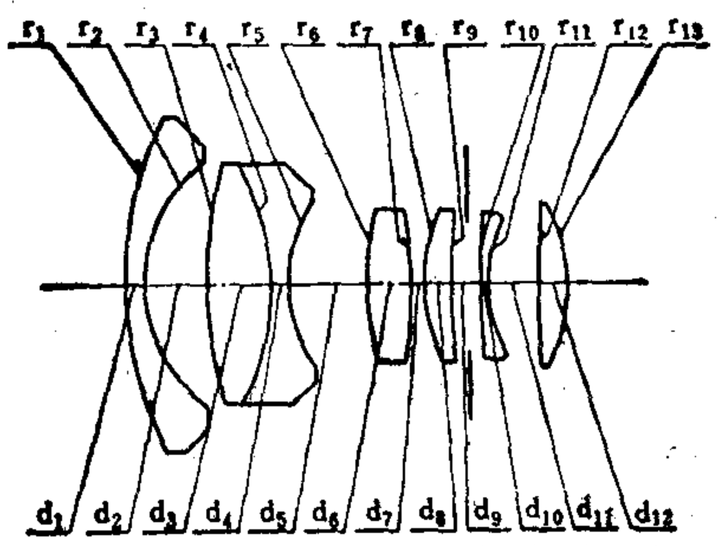




编号：06-02-071

反远距型广角物镜

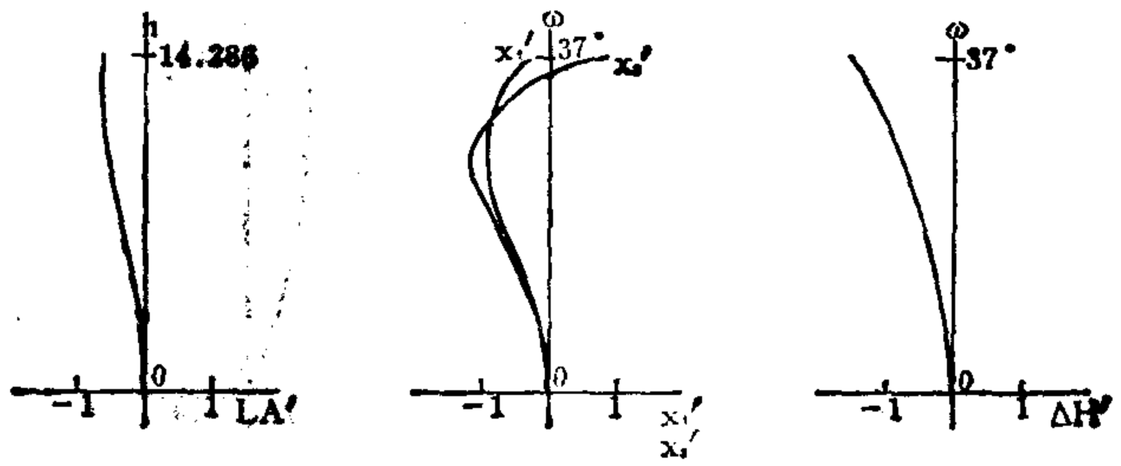
E. F. L＝100　　B. F. L＝132.3　　FNo. ＝3.5　　F. A. ＝±37°

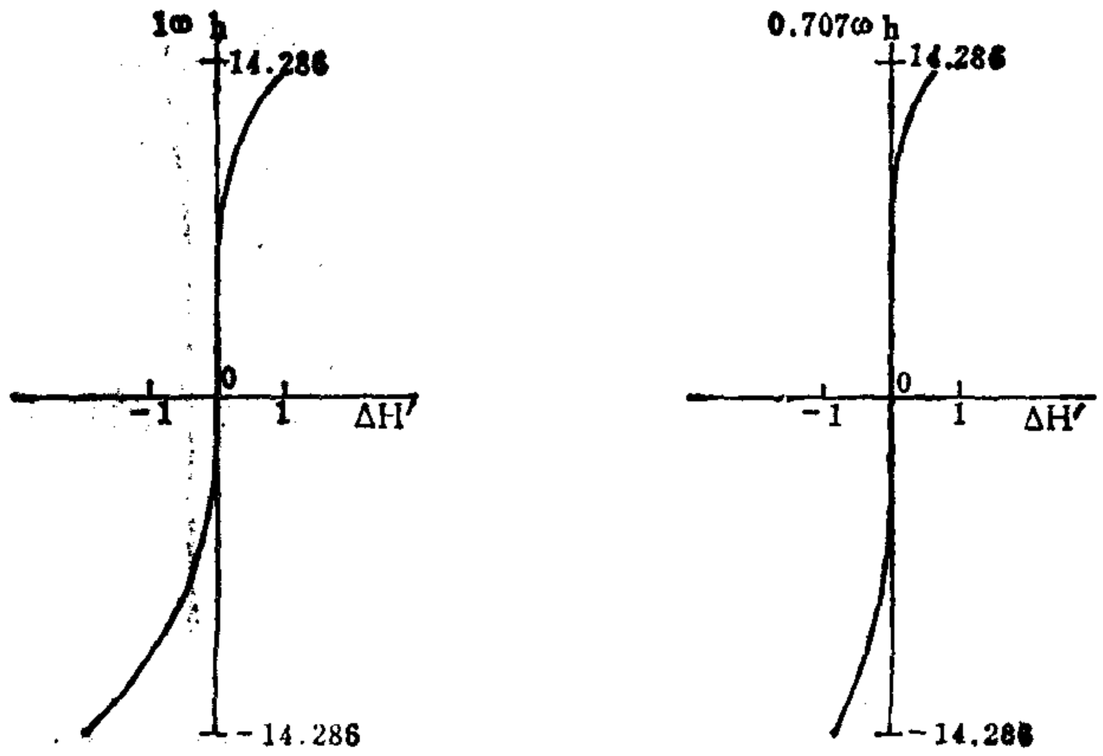


序号	r	d	n	v	序号	r	d	n	v
1	136.480	7.09	1.51633	64.1	8	65.408	9.57	1.51633	64.1
2	55.574	23.00			9	402.760	11.40*		
3	165.470	23.00	1.62606	39.1	10	630.040	3.52	1.72825	28.3
4	−89.227	7.09	1.51742	52.2	11	53.536	17.89		
5	52.446	28.30			12	523.660	10.41	1.61729	62.7
6	114.370	15.91	1.58313	59.3	13	−63.887			
7	−179.200	5.61							

11.40* = 6.00 + 5.40

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.0506	−0.0181	0.0039	−0.1348	−0.5198	75.3	−1.9%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.587	−1.467	−0.313	0.939	−1.252	−0.4539	−0.2615
70	−0.498	−0.741	−0.907	−1.160	0.253	−0.0362	−0.0836

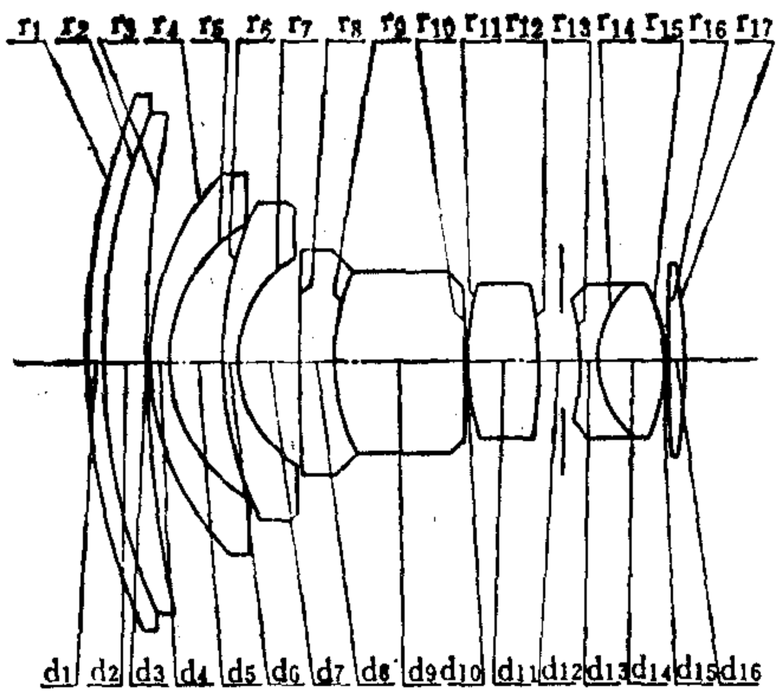




编号：06-02-072

反远距型超广角物镜

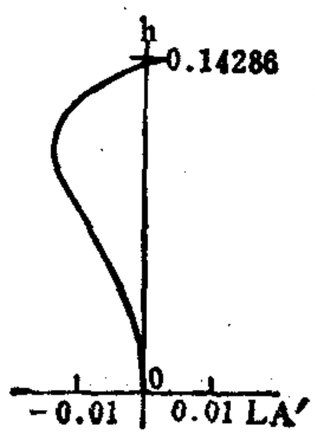
E. F. L＝1　　B. F. L＝1.780　　FNo.＝3.5　　F. A. ＝±47°

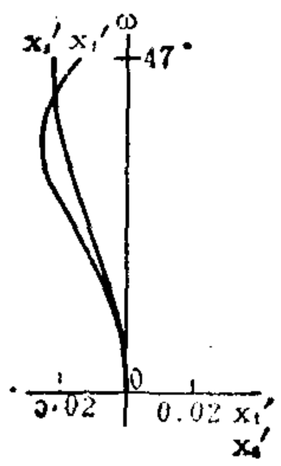


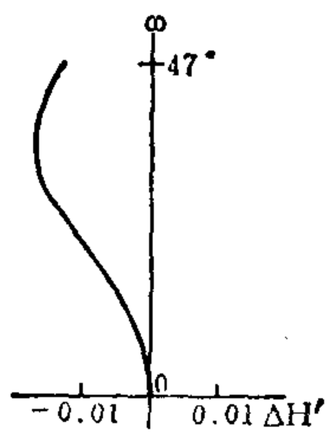
序号	r	d	n	v	序号	r	d	n	v
1	3.079	0.074	1.78472	25.7	10	−32.683	0.005		
2	2.804	0.187	1.71300	53.9	11	1.188	0.322	1.64831	33.8
3	7.009	0.005			12	−1.636	0.178*		
4	1.194	0.084	1.71300	53.9	13	−1.112	0.084	1.64831	33.8
5	0.704	0.234			14	0.444	0.294	1.56384	60.8
6	1.565	0.079	1.64250	58.1	15	−0.794	0.005		
7	0.528	0.271			16	18.692	0.070	1.52642	60.1
8	18.224	0.150	1.71300	53.9	17	−2.544			
9	0.935	0.584	1.62230	53.1					

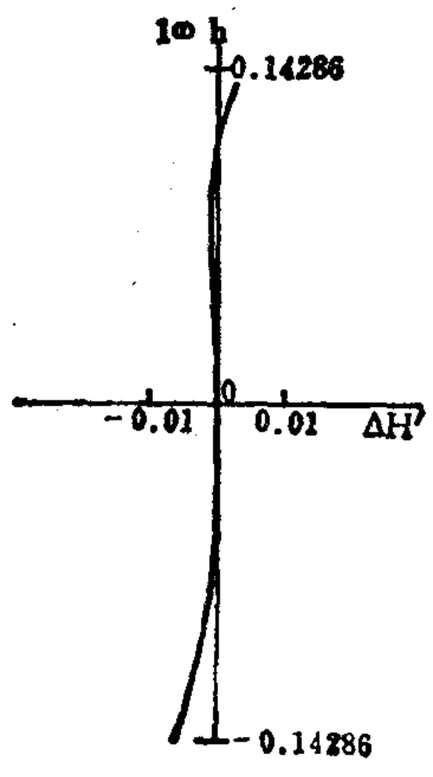
0.178* = 0.100 + 0.078

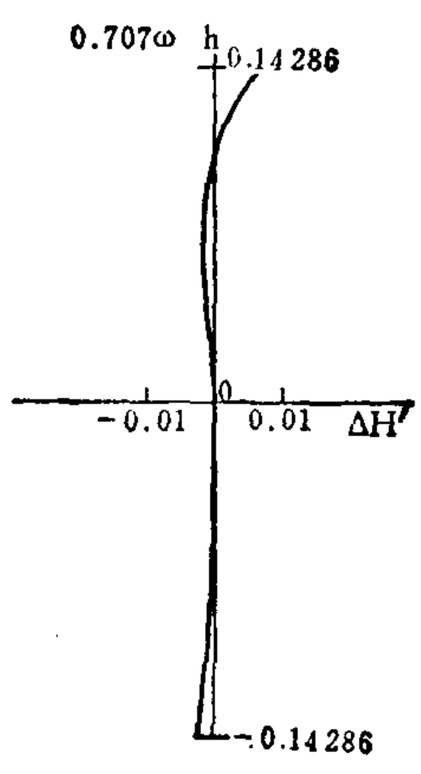
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.00166	0.00181	−0.00199	−0.00102	−0.00715	1.07	−1.2%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.00274	−0.0133	−0.0136	−0.0222	0.0086	−0.000429	−0.000633
70	−0.01364	−0.0166	−0.0248	−0.0184	−0.0064	0.002253	−0.000535







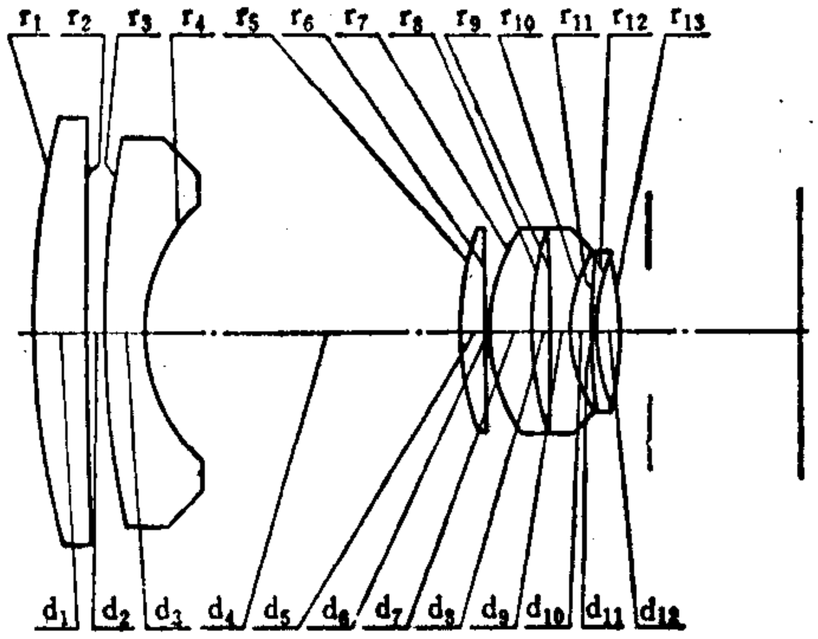




编号：06-02-073

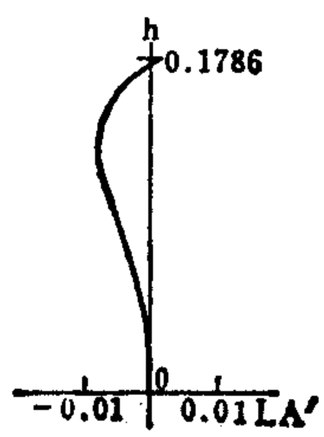
后光栏式摄影广角物镜

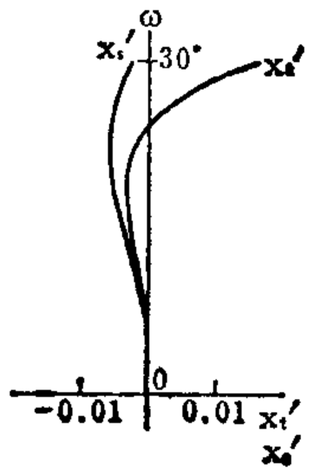
E. F. L＝1　　B. F. L＝1.316　　FNo. ＝2.8　　F. A. ＝±30°　　L'_{p13}＝0.100

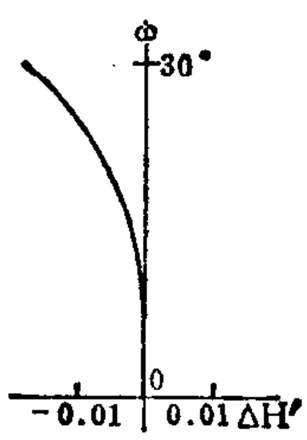


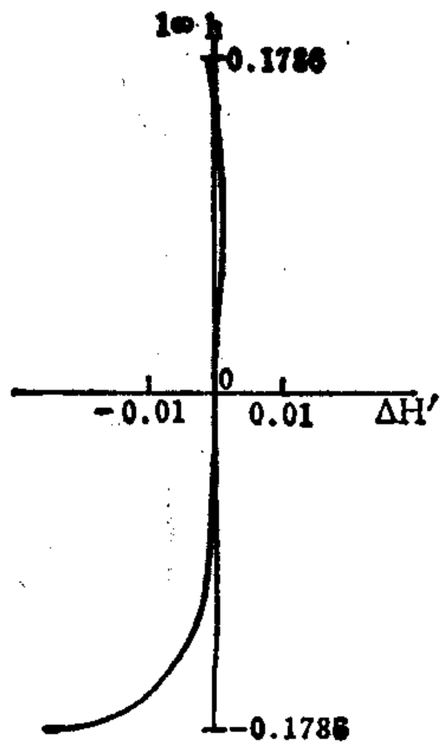
序号	r	d	n	v	序号	r	d	n	v
1	3.061	0.197	1.67270	32.2	8	1.572	0.049		
2	12.432	0.077			9	−12.432	0.080	1.62588	35.6
3	4.358	0.140	1.62041	60.3	10	0.531	0.063		
4	0.632	1.153			11	2.258	0.026	1.62004	36.3
5	1.096	0.092	1.62041	60.3	12	0.722	0.083	1.71300	53.9
6	−42.870	0.003			13	−1.206			
7	0.661	0.166	1.62041	60.3					

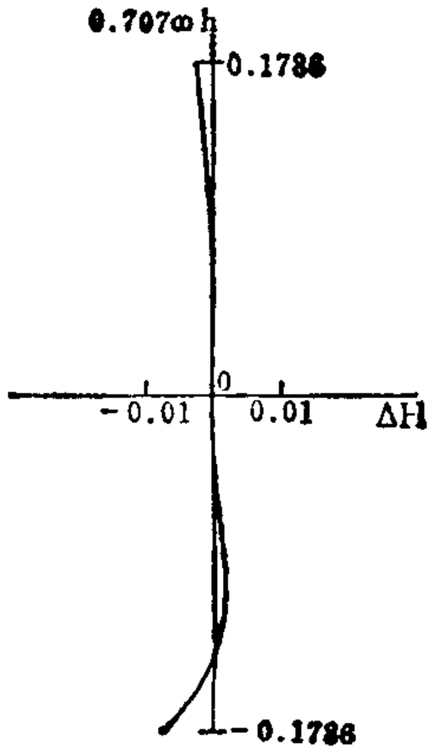
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.001511	0.000114	−0.000205	−0.000639	−0.004453	0.57	−3.1%
h 或 ω%	LA′	ΔH′	x'_t	x'_s	$x'_t - x'_s$	K'_{T1}	$K'_{T0.7}$
100	0.00118	−0.0179	0.0165	−0.0023	0.0188	−0.01337	−0.00179
70	−0.00745	−0.0057	−0.00237	−0.00455	0.00218	−0.00575	−0.00065







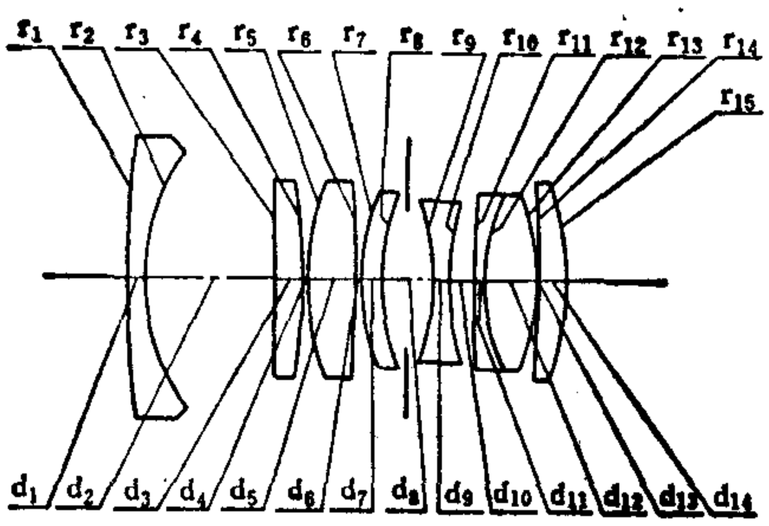




编号：06-02-074

广 角 大 孔 径 物 镜

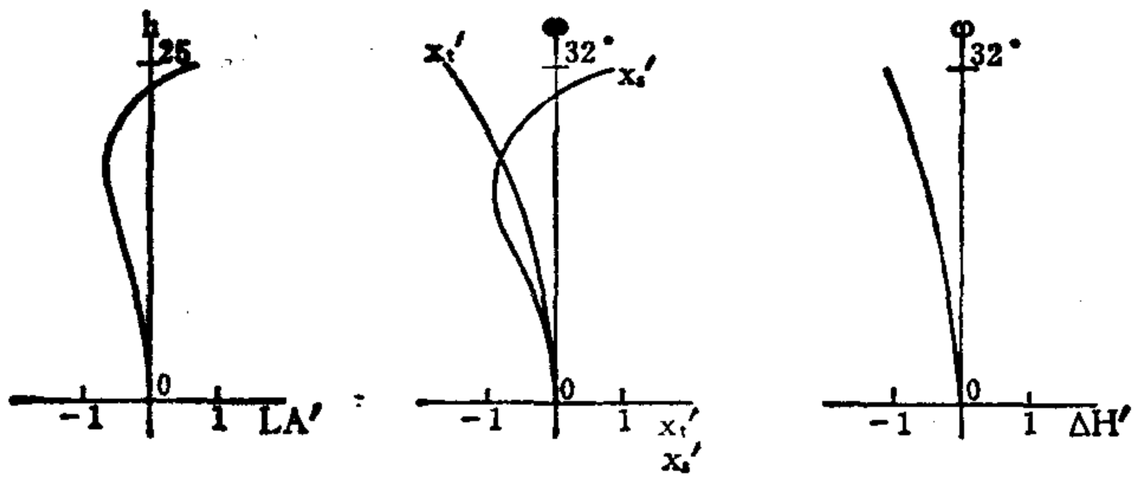
E. F. L＝100　　B. F. L＝103.96　　FNo. ＝2　　F. A. ＝±32°

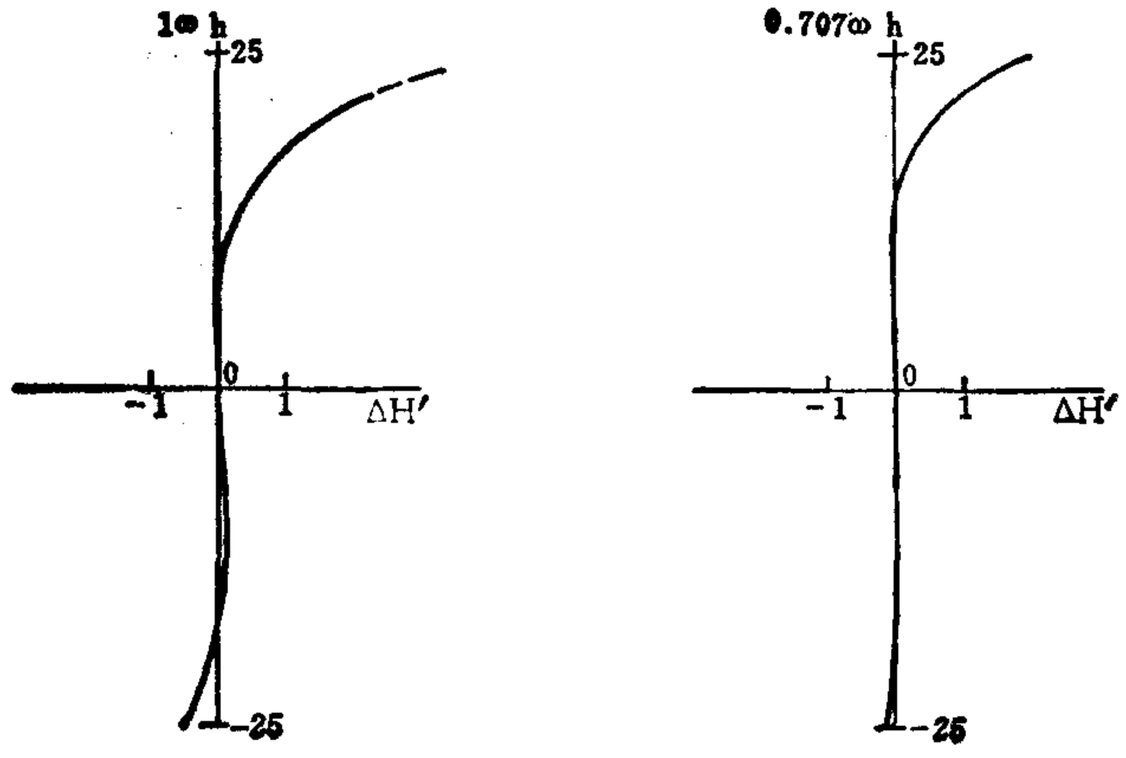


序号	r	d	n	v	序号	r	d	n	v
1	450.000	7.00	1.58913	61.2	9	－91.500	6.50	1.74077	27.7
2	80.137	47.00			10	98.025	8.00		
3	－2300.000	10.00	1.76200	40.3	11	10000.000	4.00	1.83400	37.2
4	－292.234	2.00			12	71.000	19.00	1.77252	49.6
5	95.700	18.00	1.77252	49.6	13	－89.354	0.50		
6	－707.468	1.00			14	－600.000	10.00	1.77252	49.6
7	80.000	8.00	1.53172	48.9	15	－110.648			
8	84.488	18.00*							

18.00* = 9.00 + 9.00

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	－0.2779	－0.0676	0.0463	－0.3820	－0.8123	62.5	－1.8%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.6706	－1.1132	－1.6577	0.9051	－2.5628	2.0075	0.4834
70	－0.6454	－0.5800	－0.7644	－0.8001	0.0357	0.9598	0.1078

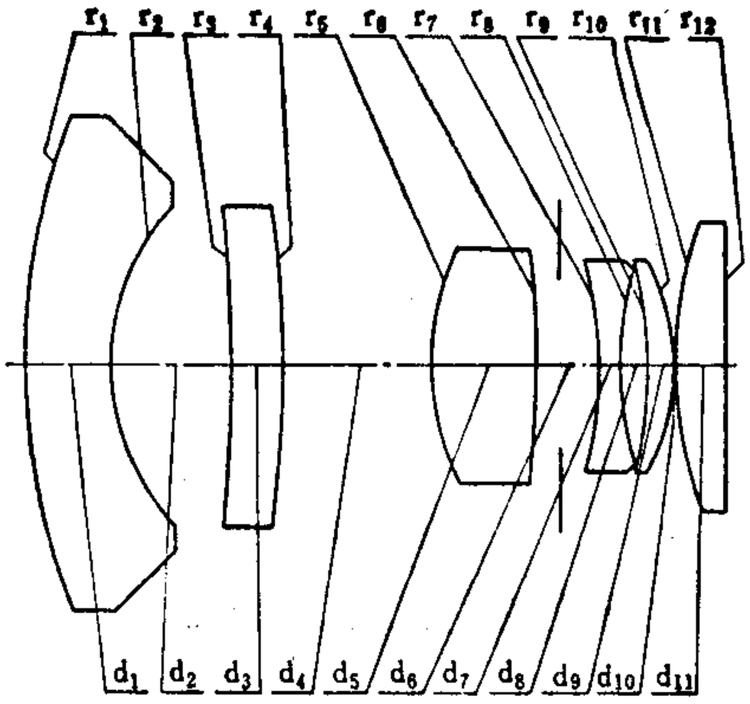




编号：06-02-075

反远距型广角物镜

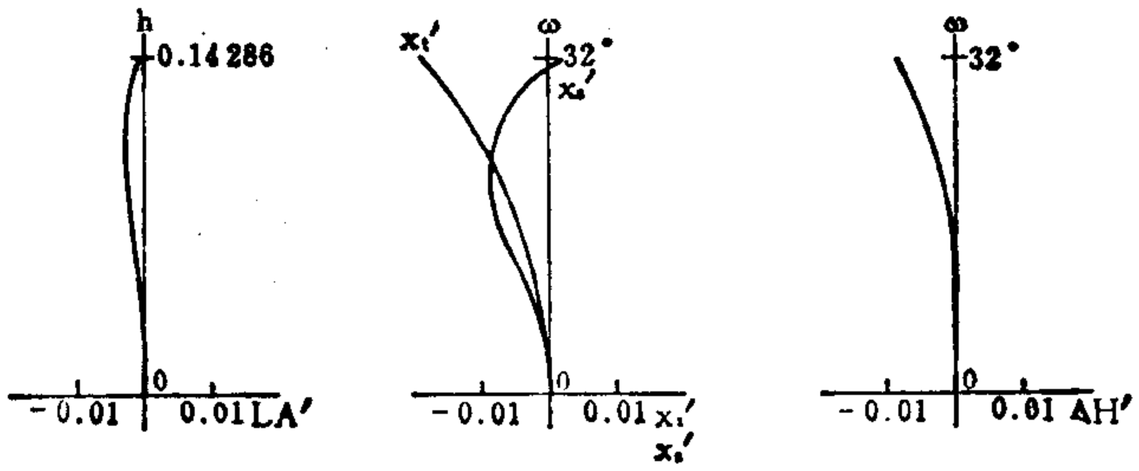
E. F. L＝1　　B. F. L＝1.0715　　FNo. ＝3.5　　F. A. ＝±32°

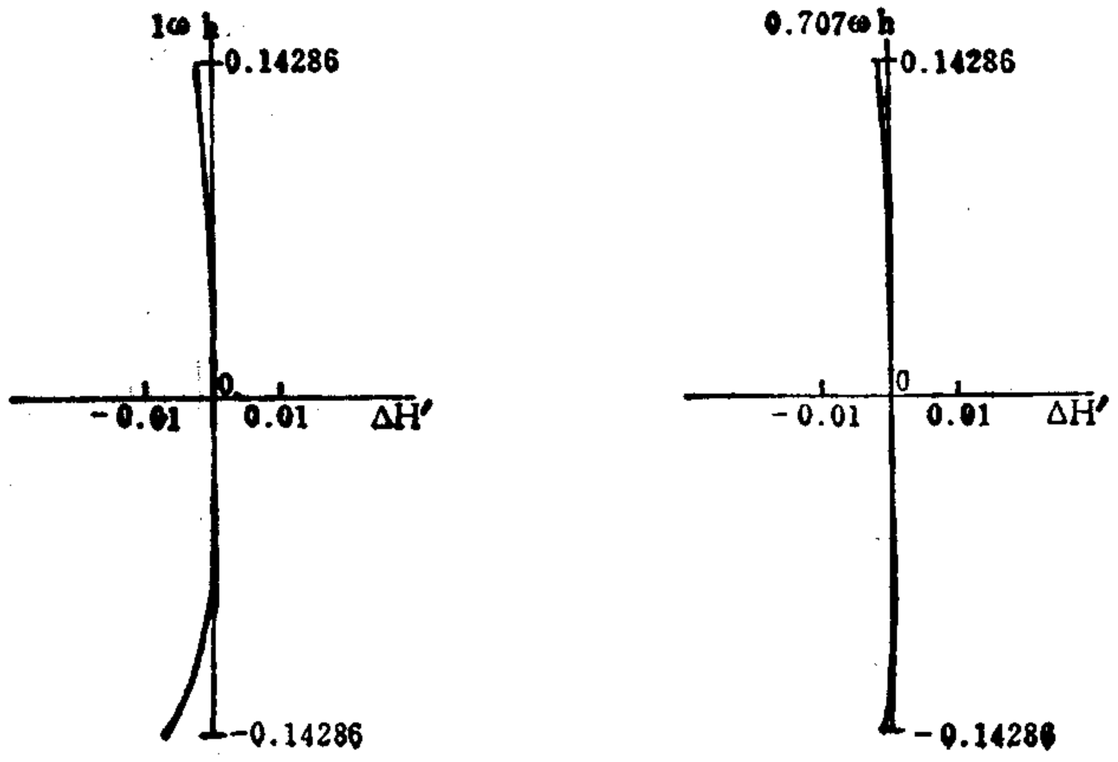


序号	r	d	n	ν	序号	r	d	n	ν
1	1.2440	0.155	1.53172	48.9	7	−0.7068	0.042	1.72825	28.3
2	0.4280	0.217			8	0.6324	0.043		
3	−3.3180	0.096	1.65844	50.8	9	−0.8211	0.051	1.67790	55.5
4	−1.9530	0.277			10	−0.4103	0.003		
5	0.5377	0.190	1.66755	41.9	11	0.8335	0.087	1.60311	60.7
6	−1.9660	0.113*			12	∞			

$0.113^* = 0.040 + 0.073$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.000304	0.000042	−0.000086	−0.001038	−0.002018	0.62	−1.3%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}$
100	−0.00062	−0.00846	−0.01913	0.00328	−0.02241	−0.00430	−0.00180
70	−0.00248	−0.00285	−0.00762	−0.00768	0.00006	−0.00119	−0.00052

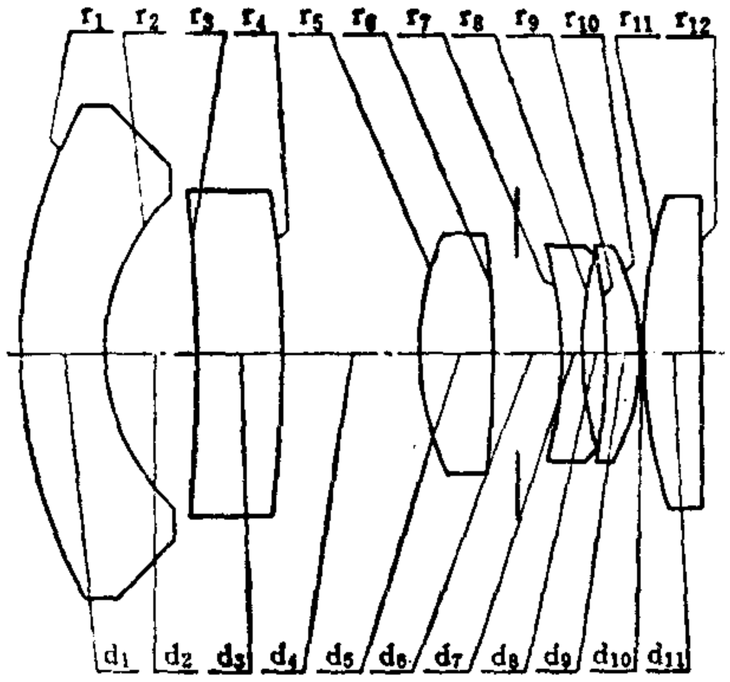




编号：06-02-076

反远距型广角物镜

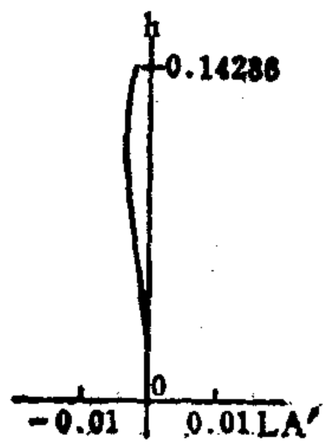
E. F. L＝1　　B. F. L＝1.068　　FNo. ＝3.5　　F. A. ＝±32°

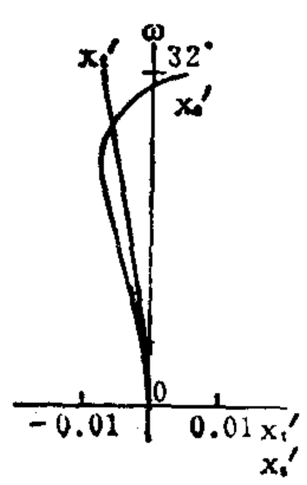


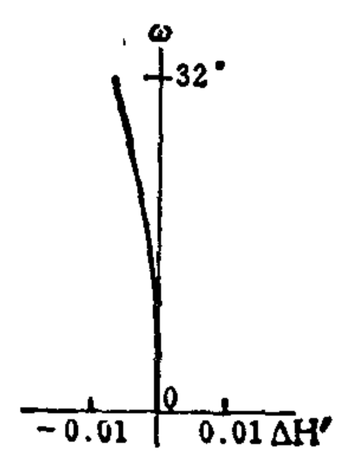
序号	r	d	n	ν	序号	r	d	n	ν
1	0.9344	0.155	1.53172	48.9	7	−0.7014	0.042	1.72825	28.3
2	0.3862	0.167			8	0.6637	0.039		
3	−2.6200	0.154	1.65844	50.8	9	−1.0060	0.066	1.67790	55.5
4	−1.9830	0.251			10	−0.4197	0.003		
5	0.5414	0.134	1.66755	41.9	11	0.9977	0.104	1.60311	60.7
6	−1.8460	0.121*			12	∞			

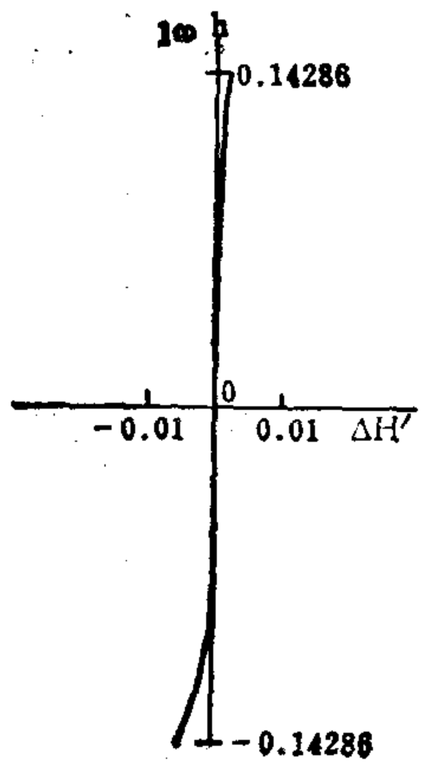
$0.121^{*} = 0.040 + 0.081$

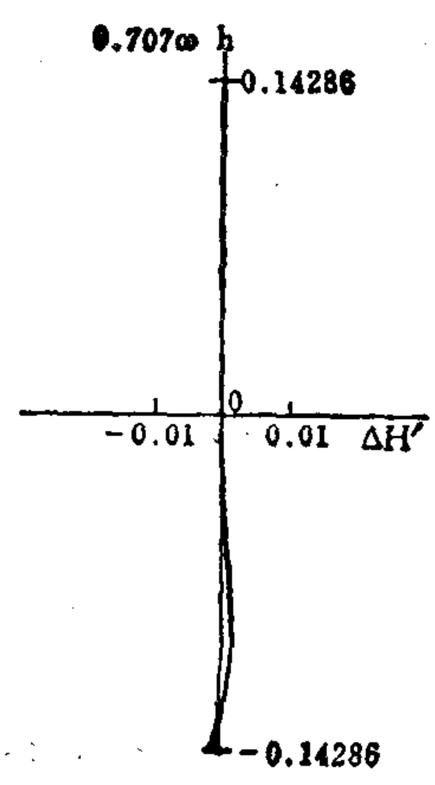
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.000367	0.000064	0.000119	−0.001032	−0.002187	0.62	−1%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.00261	−0.00657	−0.00732	0.00536	−0.01268	−0.00139	0.00002
70	−0.00332	−0.00282	−0.00595	−0.00700	0.00105	−0.00075	−0.00012







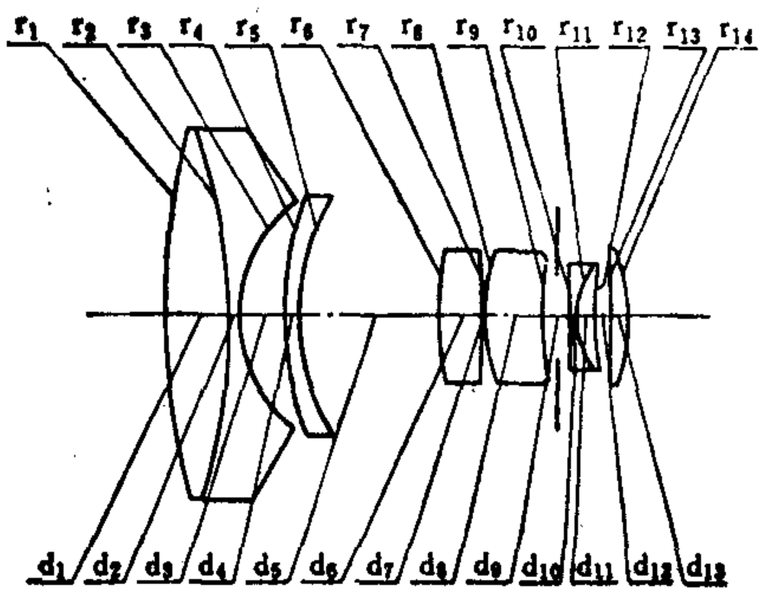




编号：06-02-077

反远距型照相广角物镜

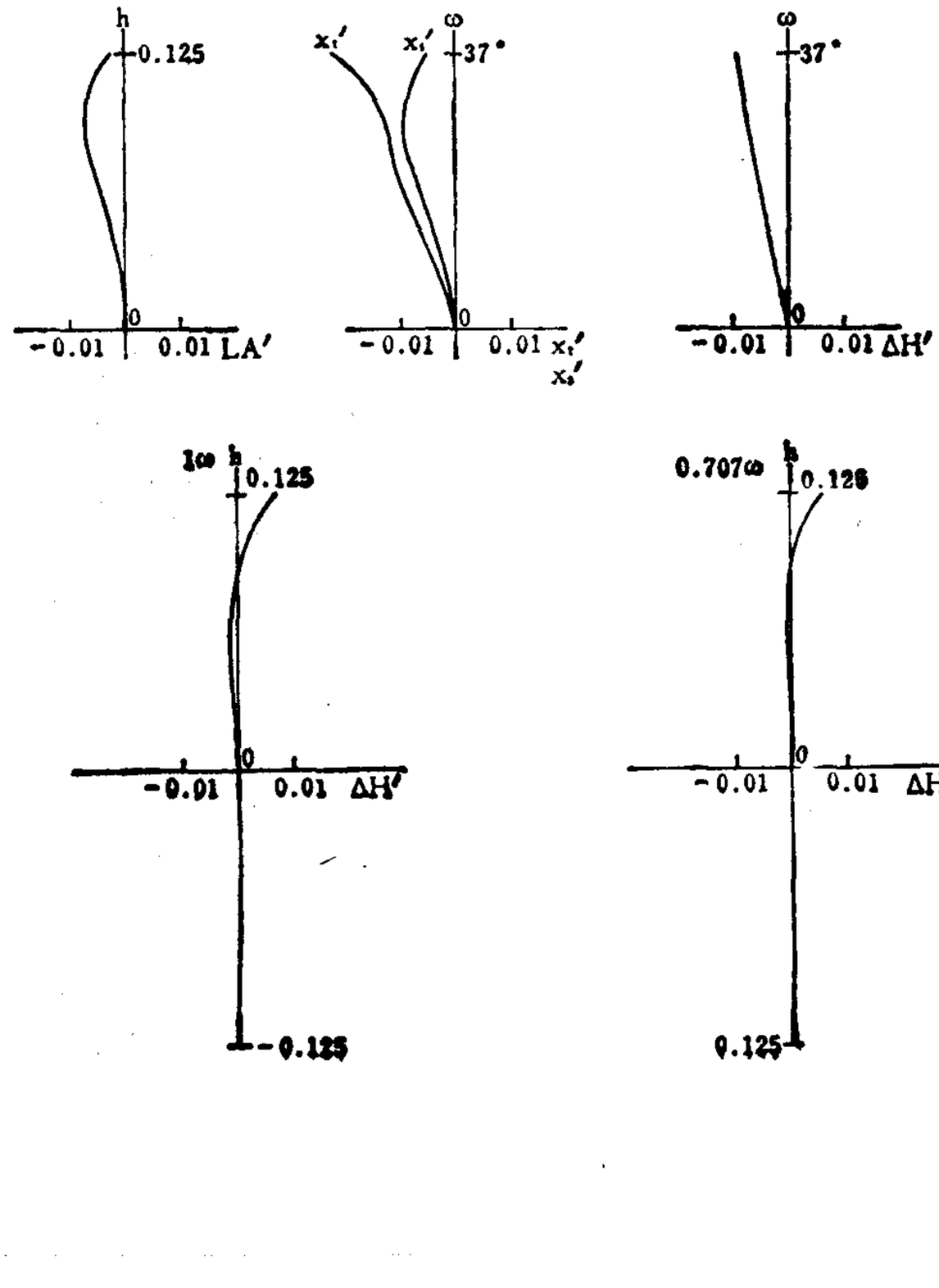
E. F. L＝1　　B. F. L＝1.32　　FNo. ＝4　　F. A. ＝±37°



序号	r	d	n	ν	序号	r	d	n	ν
1	2.7479	0.2215	1.7050	54.8	8	0.7316	0.2160	1.6645	35.9
2	－2.1394	0.0504	1.5831	59.3	9	1.7406	0.0932*		
3	0.5180	0.1700			10	－7.3140	0.0281	1.6727	32.2
4	1.2830	0.0518	1.5709	51.0	11	0.3150	0.0733	1.5168	64.2
5	0.8431	0.5031			12	1.4267	0.0450		
6	1.2704	0.1513	1.7003	47.6	13	－9.5910	0.0730	1.6968	55.6
7	－4.9730	0.0050			14	－0.7023			

0.0932* = 0.0460 + 0.0472

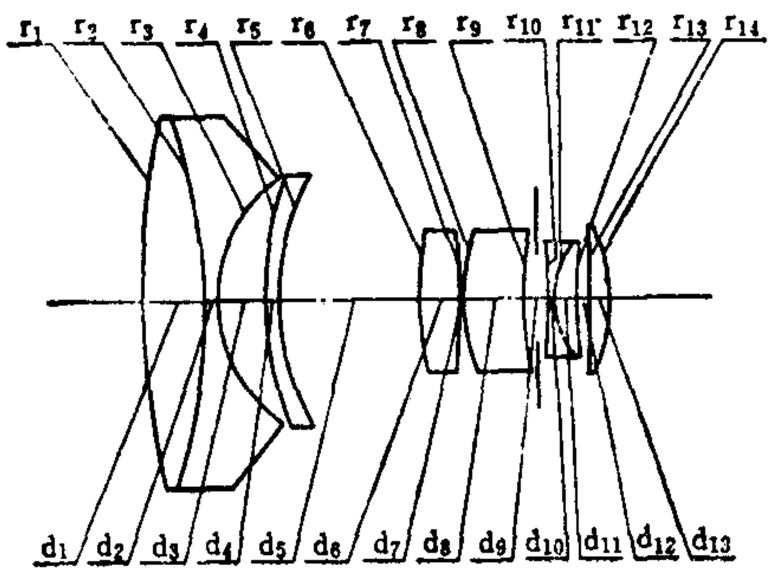
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	－0.00063	－0.00026	－0.00020	－0.00050	－0.00435	0.75	－1.2%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	－0.00235	－0.00904	－0.0228	－0.0049	－0.0179	0.00338	0.00008
70	－0.00680	－0.00652	－0.0117	－0.0091	－0.0026	0.00357	－0.00004



编号：06-02-078

反远距型照相广角物镜

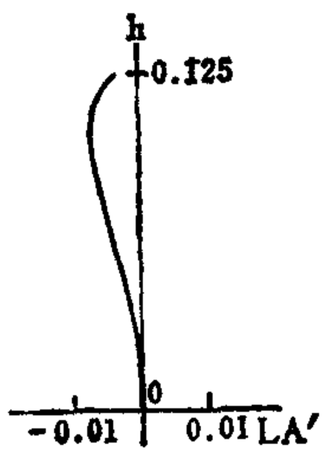
E. F. L＝1　　B. F. L＝1.27　　FNo. ＝4　　F. A. ＝ ±37°

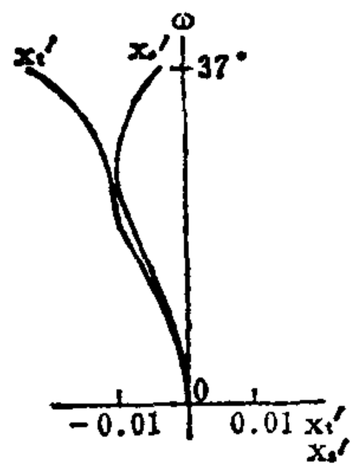


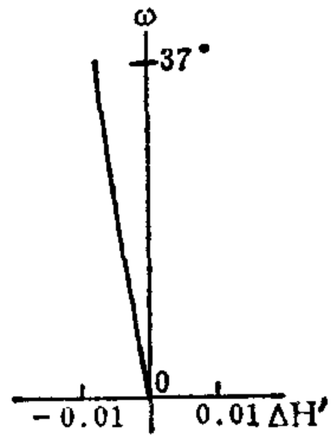
序号	r	d	n	v	序号	r	d	n	v
1	3.2310	0.2200	1.6935	51.8	8	0.7208	0.2173	1.6645	35.9
2	－2.1041	0.0500	1.5725	57.5	9	1.2781	0.0865*		
3	0.5451	0.1700			10	－2.3945	0.0281	1.6727	32.2
4	1.2972	0.0502	1.5176	53.5	11	0.3269	0.0794	1.5168	64.2
5	0.9426	0.5183			12	1.5765	0.0450		
6	1.2442	0.1526	1.7003	47.6	13	∞	0.0730	1.7080	53.3
7	－3.6840	0.0109			14	－0.6752			

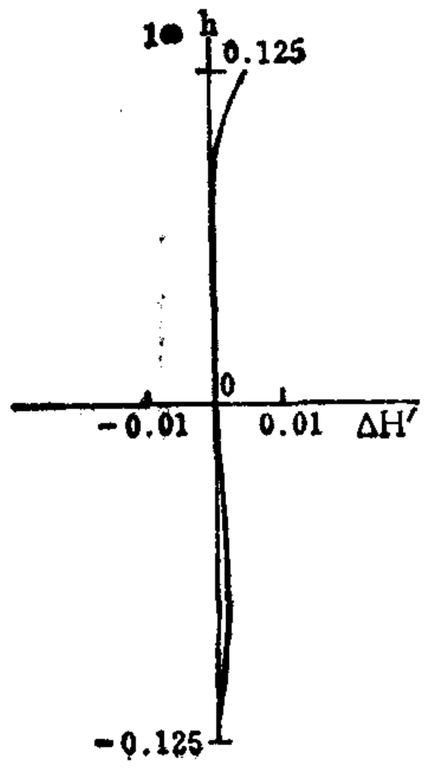
0.0865* = 0.0460 + 0.0405

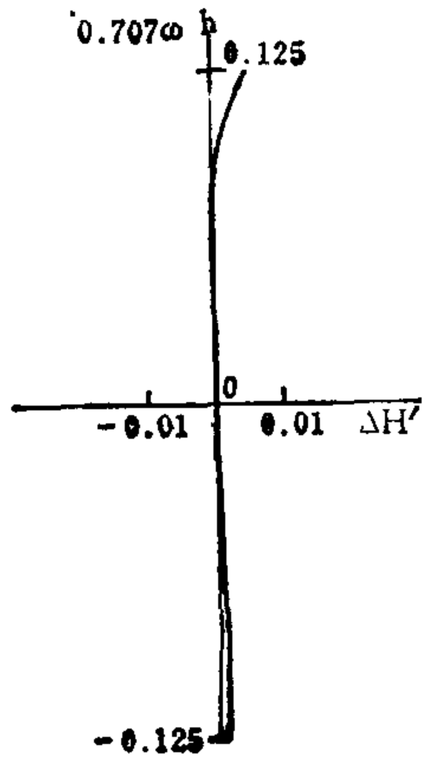
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	－0.000546	－0.000151	－0.000173	－0.000609	－0.004237	0.75	－0.98%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	－0.00348	－0.00745	－0.02359	－0.00291	－0.02068	0.002327	－0.000103
70	－0.00606	－0.00622	－0.01143	－0.00967	－0.00176	0.003039	0.00004







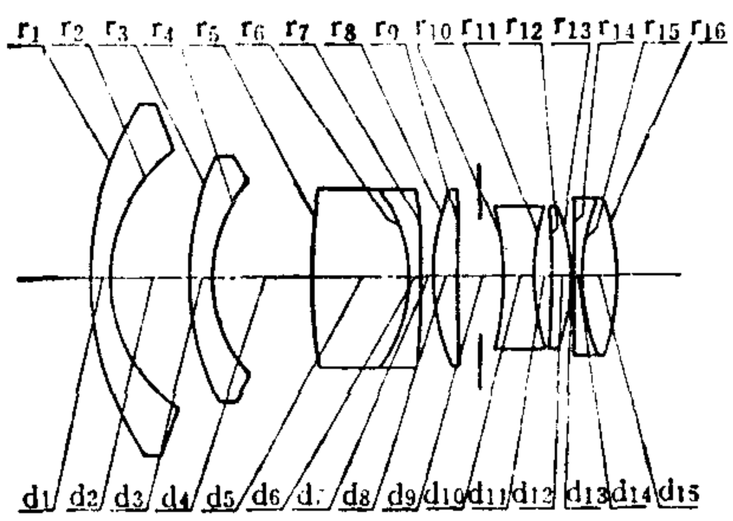




编号：06-02-079

反远距型照相广角物镜

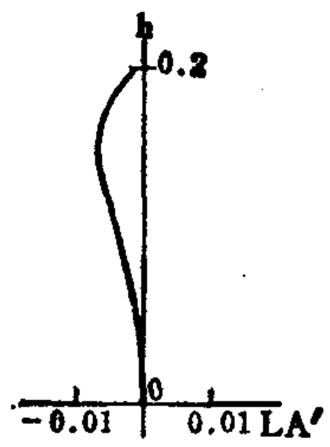
E. F. L＝1　　B. F. L＝1.307　　FNo. ＝2.5　　F. A. ＝±38°

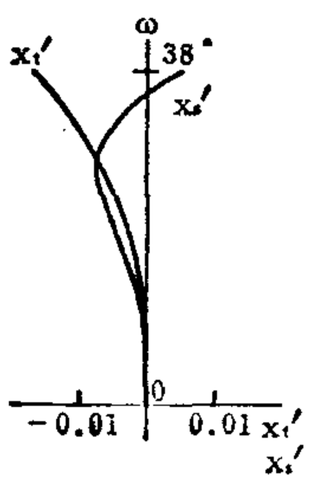


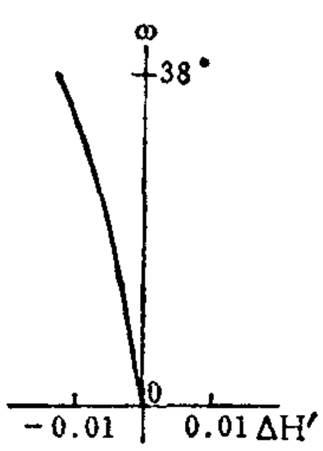
序号	r	d	n	v	序号	r	d	n	v
1	1.4643	0.0850	1.6583	58.5	9	13.5890	0.2017*		
2	0.7173	0.3514			10	−1.3461	0.1416	1.7557	27.2
3	1.2629	0.1000	1.6214	61.2	11	1.1523	0.0680		
4	0.6521	0.4380			12	−5.7810	0.0880	1.7435	49.3
5	2.6089	0.4286	1.7425	52.5	13	−0.9060	0.0100		
6	−0.6830	0.0450	1.5176	53.5	14	20.4740	0.0320	1.7352	40.8
7	−5.1190	0.0532			15	0.8724	0.1600	1.5725	57.5
8	1.0233	0.1074	1.6676	41.9	16	−1.1412			

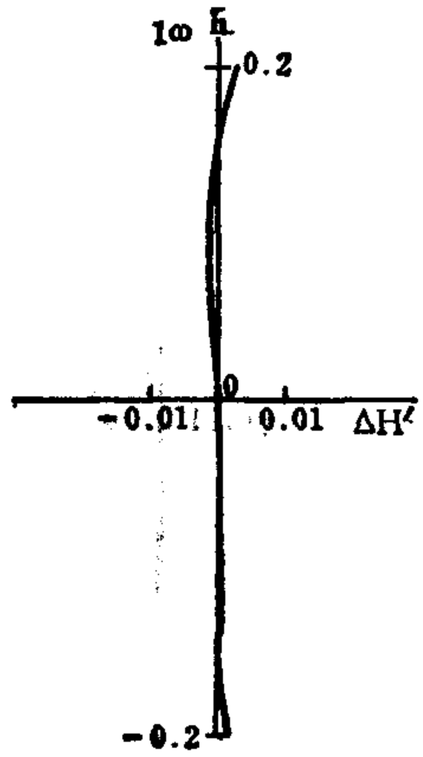
0.2017* = 0.1000 + 0.1017

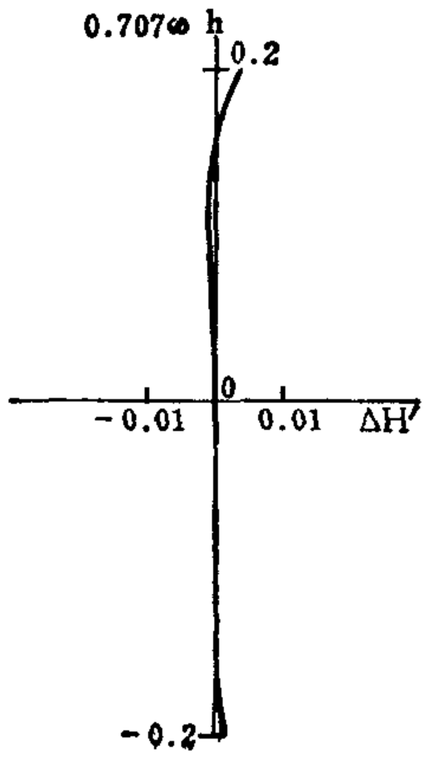
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.001616	−0.000268	0.000244	−0.001890	−0.007367	0.78	−1.6%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.00009	−0.01288	−0.01682	0.00482	−0.02164	0.002779	−0.000029
70	−0.00650	−0.00720	−0.00621	−0.00729	0.00108	0.003271	−0.000093







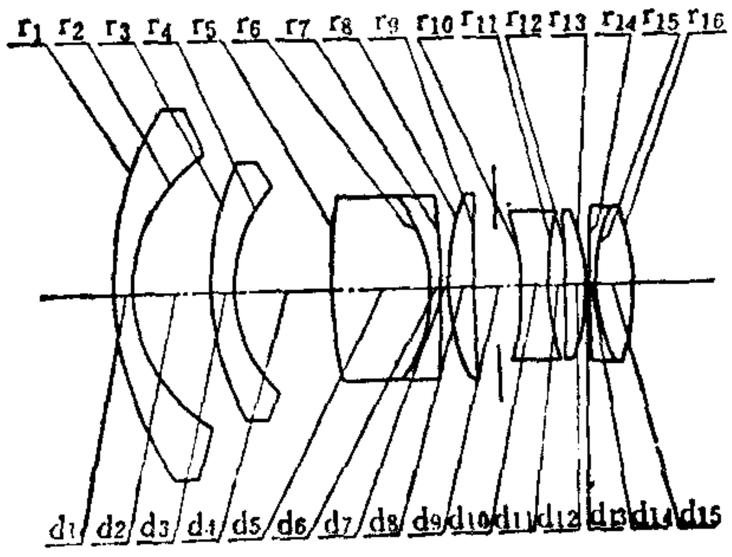




编号：06-02-080

反远距型照相广角物镜

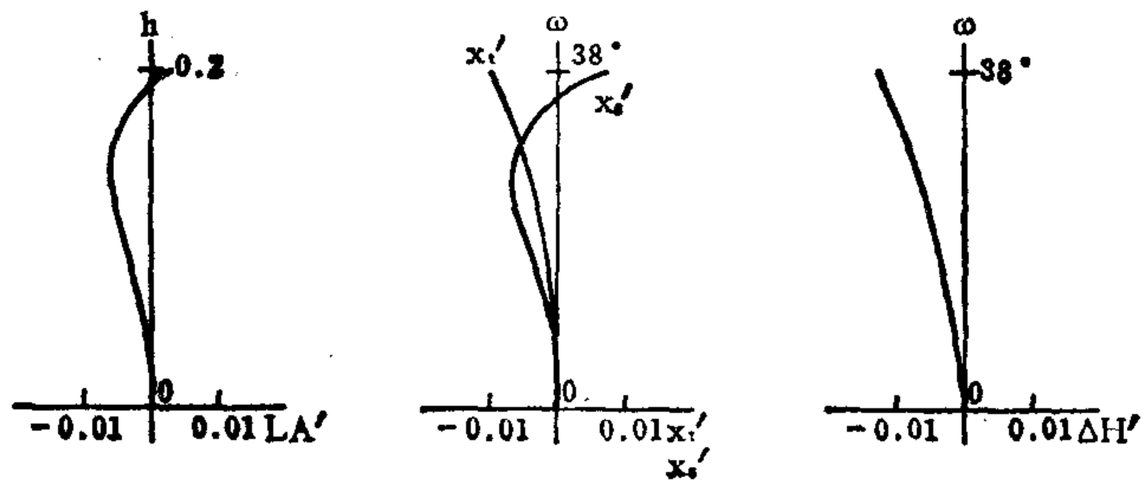
E. F. L＝1　　B. F. L＝1.317　　FNo. ＝2.5　　F. A. ＝±38°

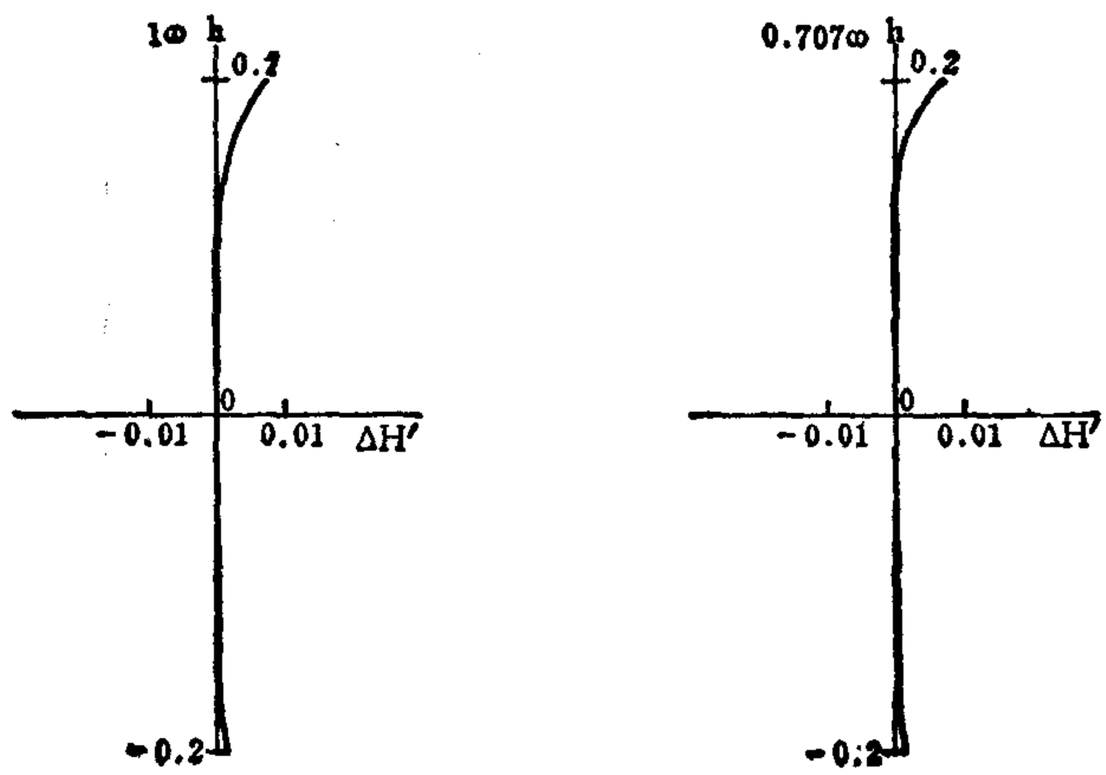


序号	r	d	n	ν	序号	r	d	n	ν
1	1.5196	0.0850	1.6583	58.5	9	17.6570	0.2117*		
2	0.7127	0.3514			10	−1.2141	0.1297	1.7400	28.2
3	1.2593	0.1000	1.6204	60.3	11	1.2143	0.0680		
4	0.6715	0.4357			12	−5.5750	0.0880	1.7435	49.3
5	2.4732	0.4286	1.7435	49.3	13	−0.8947	0.0100		
6	−0.6904	0.0450	1.5213	50.1	14	24.1140	0.0320	1.7352	40.8
7	−5.8720	0.0417			15	0.8175	0.1600	1.5725	57.5
8	1.0673	0.1074	1.6783	49.1	16	−1.1040			

$0.2117^{*} = 0.1000 + 0.1117$

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	0.001522	−0.000320	0.000257	−0.001819	−0.007578	0.78	−1.7%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	0.00255	−0.01347	−0.00999	0.00695	−0.01694	0.004343	0.000462
70	−0.00573	−0.00745	−0.00474	−0.00653	0.00179	0.004197	0.000117

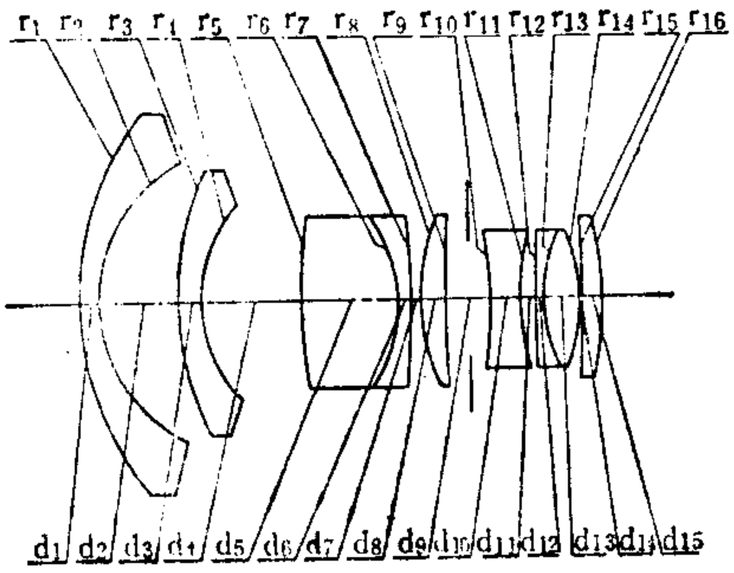




编号：06-02-081

反远距型照相广角物镜

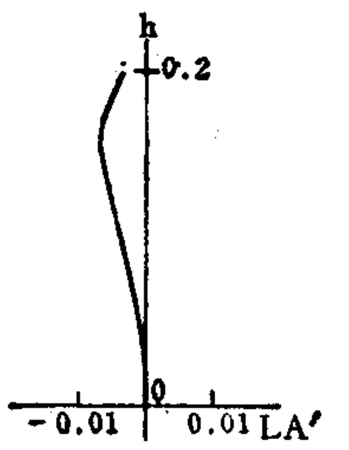
E. F. L＝1　　B. F. L＝1.307　　FNo. ＝2.5　　F. A. ＝±38°

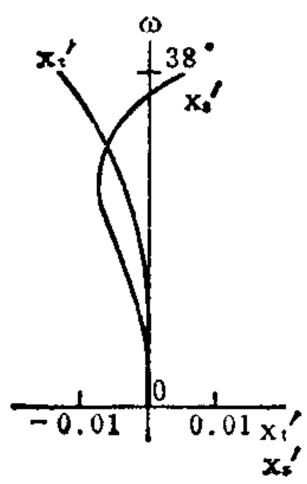


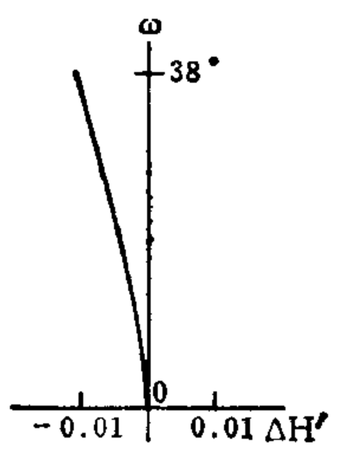
序号	r	d	n	ν	序号	r	d	n	ν
1	1.3565	0.0850	1.6583	58.5	9	15.4010	0.1880*		
2	0.6942	0.3500			10	−1.7594	0.1399	1.7557	27.2
3	1.3625	0.0998	1.6177	55.1	11	1.1183	0.0678		
4	0.6413	0.4459			12	∞	0.0320	1.7352	40.8
5	2.4439	0.4285	1.7425	52.5	13	0.7130	0.1600	1.5725	57.5
6	−0.6662	0.0469	1.5176	53.5	14	− 0.8168	0.0055		
7	−5.0680	0.0532			15	−25.6430	0.0850	1.5891	61.2
8	0.9436	0.1074	1.6676	41.9	16	− 1.5633			

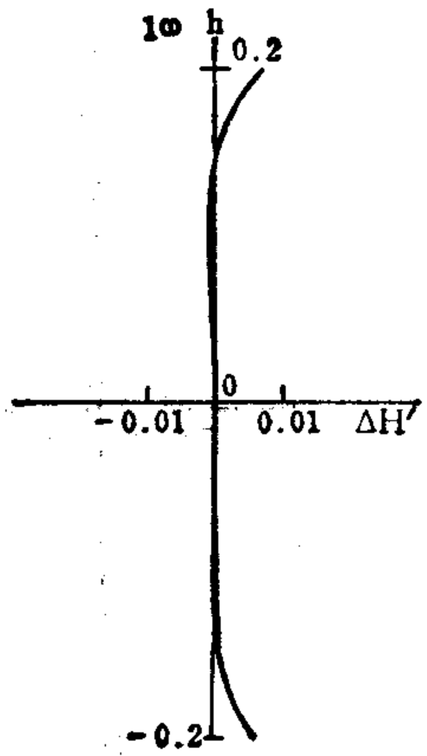
$0.1880^{*} = 0.1000 + 0.0880$

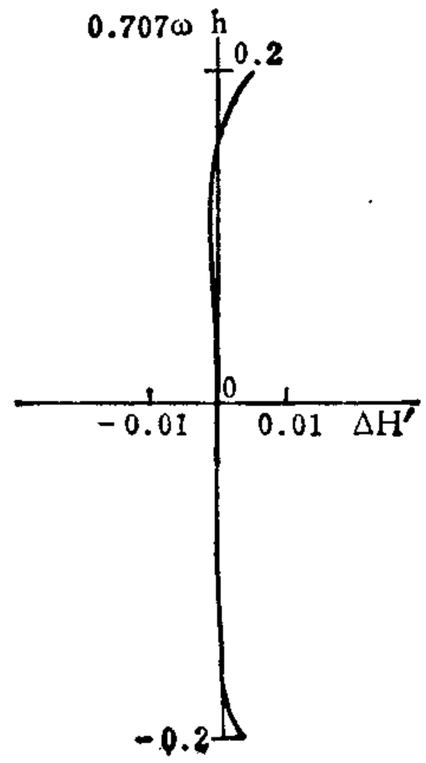
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.001317	−0.000592	0.000307	−0.001948	−0.006827	0.78	−1.4%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.00355	−0.01083	−0.01358	0.00474	−0.01832	0.006212	0.000737
70	−0.00586	−0.00656	−0.00529	−0.00735	0.00206	0.004563	−0.000173







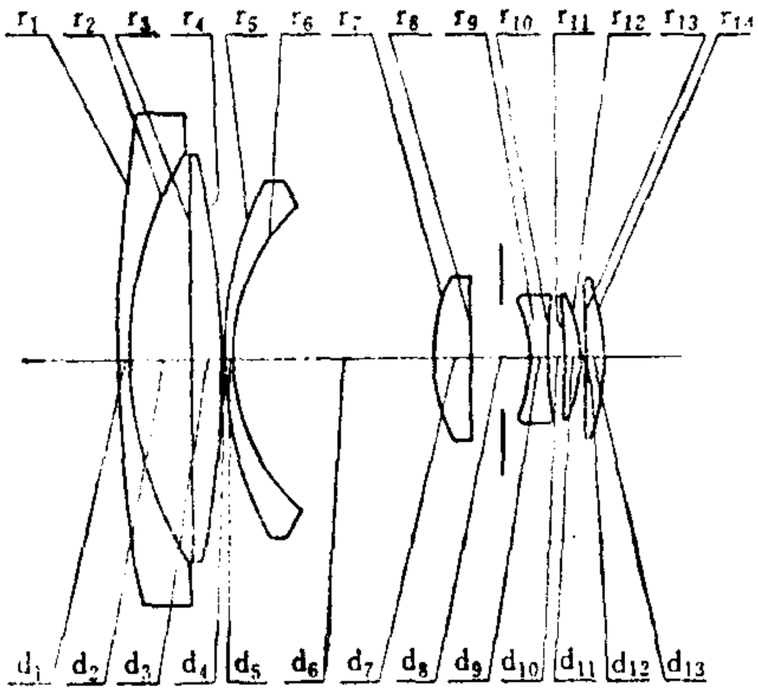




编号：06-02-082

反远距型照相广角物镜

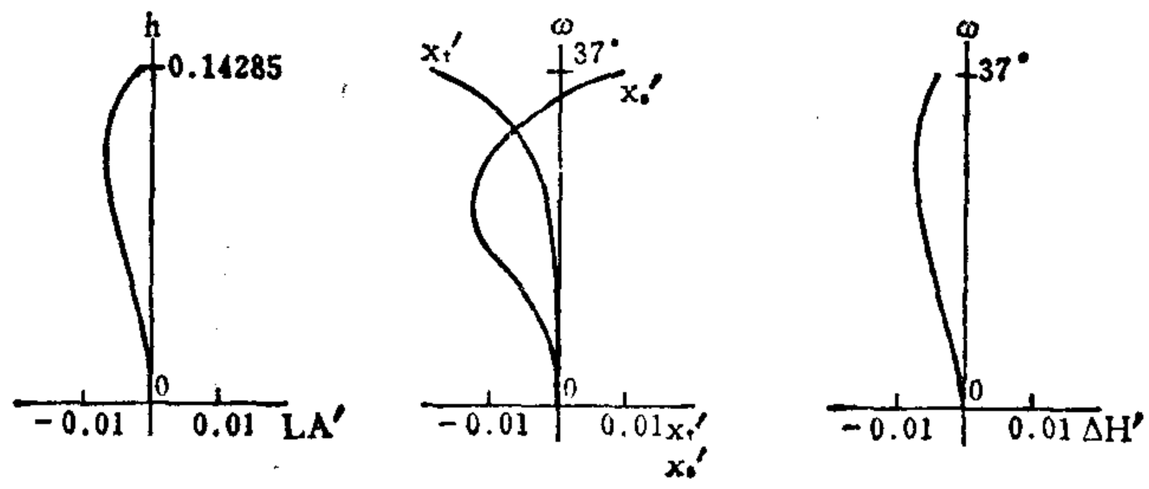
E. F. L＝1　　B. F. L＝1.31　　FNo. ＝3.5　　F. A. ＝±37°

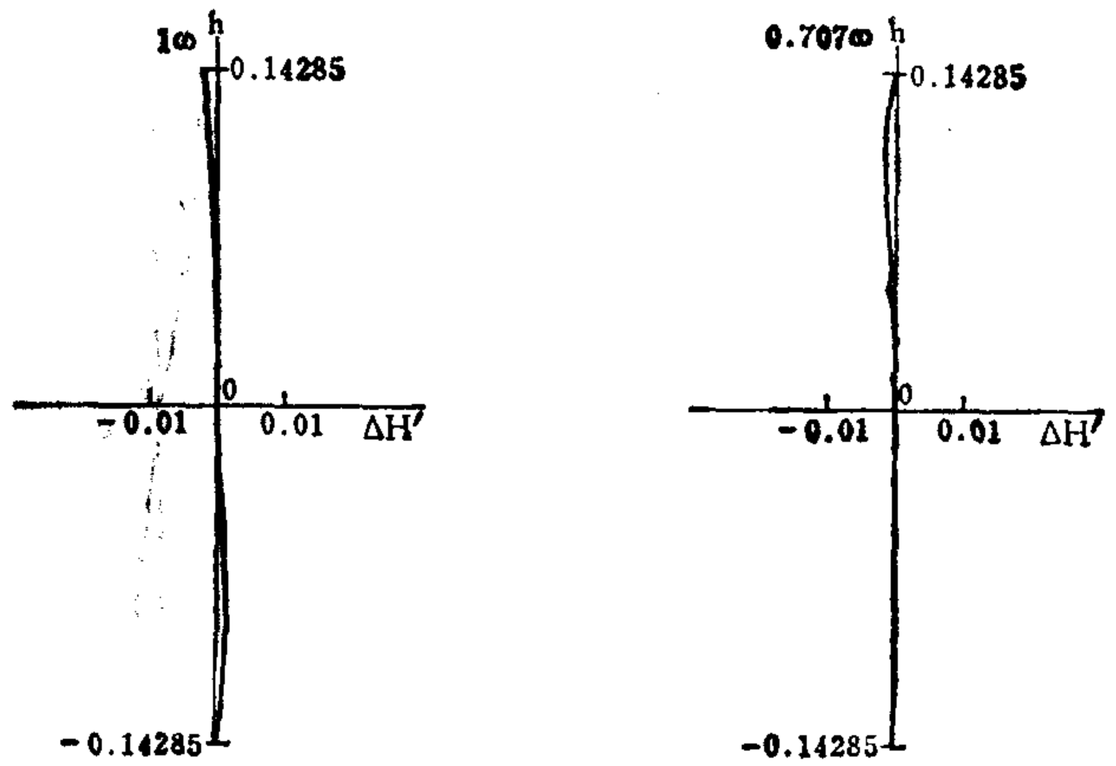


序号	r	d	n	ν	序号	r	d	n	ν
1	5.1970	0.04290	1.6583	58.5	8	−21.2900	0.20900*		
2	1.4514	0.22500			9	−0.5260	0.07320	1.7006	30.1
3	∞	0.10500	1.7500	35.0	10	1.5919	0.05100		
4	−3.7450	0.00700			11	−2.7789	0.06800	1.7200	50.3
5	1.4483	0.03214	1.5168	64.2	12	−0.5421	0.00360		
6	0.7565	0.73530			13	∞	0.07500	1.5168	64.2
7	0.7351	0.13360	1.6700	47.2	14	−0.8703			

0.20900* = 0.10900 + 0.10000

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.000925	0.000039	0.000444	−0.001757	−0.005822	0.75	−0.5%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.00117	−0.00382	−0.01932	0.00948	−0.02880	−0.001154	−0.000673
70	−0.00706	−0.00691	−0.00235	−0.01146	0.00911	0.000042	−0.000317

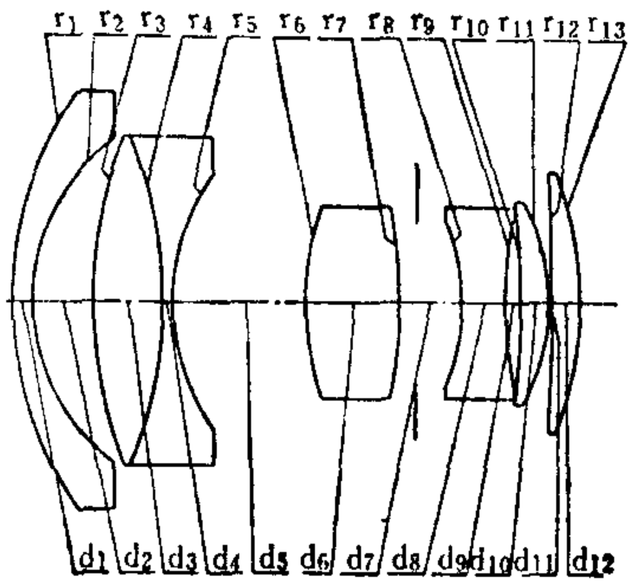




编号：06-02-083

反远距型照相广角物镜

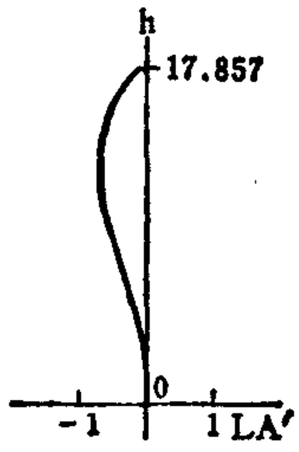
E. F. L＝100　　B. F. L＝131.53　　FNo. ＝2.8　　F. A. ＝±37.5°

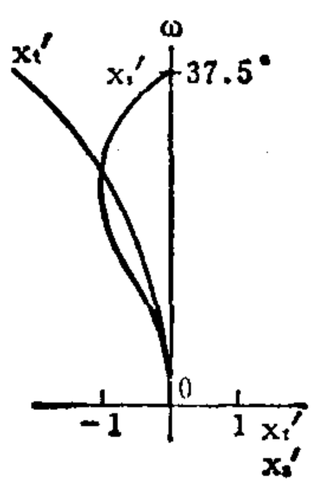


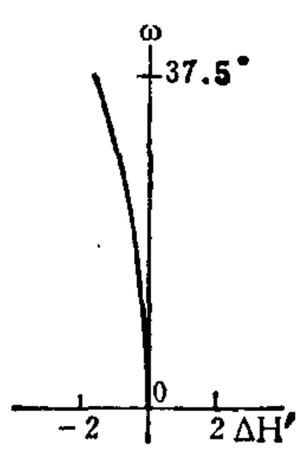
序号	r	d	n	v	序号	r	d	n	v
1	107.69	5.59	1.65160	58.5	8	− 63.99	13.99	1.78470	26.1
2	58.85	17.48			9	186.01	3.15		
3	129.37	20.98	1.69680	55.6	10	−321.68	8.74	1.71300	53.9
4	−129.37	3.50	1.62280	56.9	11	− 64.34	0.35		
5	64.69	39.51			12	−4195.80	9.09	1.71300	53.9
6	87.66	27.97	1.70154	41.1	13	−105.99			
7	−143.36	18.18*							

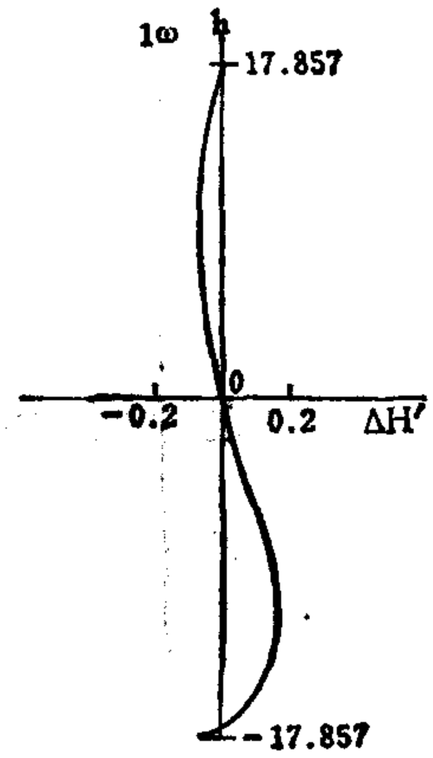
18.18* = 4.18 + 14.00

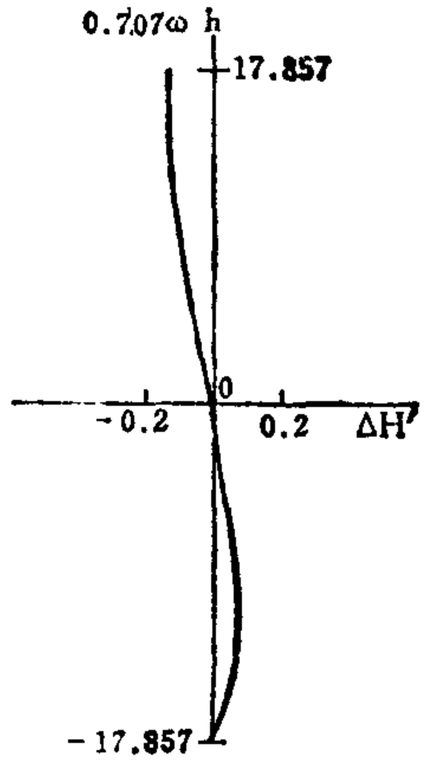
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.13499	0.00367	0.03004	−0.20758	−0.74364	76.7	−2.1%
h 或ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.1208	−1.633	−2.411	0.034	−2.445	−0.0236	0.0446
70	−0.6904	−0.836	−0.950	−1.107	0.157	−0.0639	−0.0254







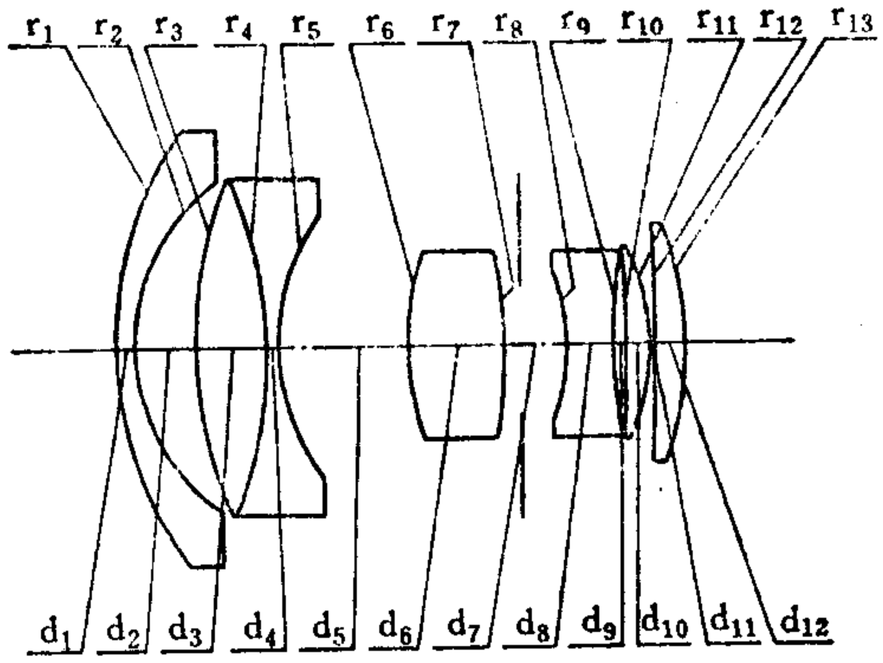




编号：06-02-084

反远距型照相广角物镜

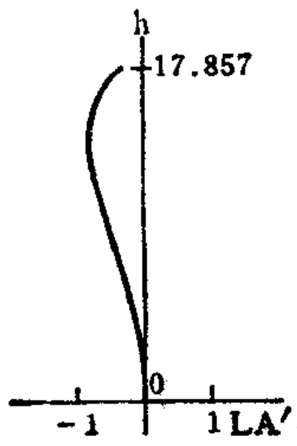
E. F. L＝99.98　　B. F. L＝131.22　　FNo. ＝2.8　　F. A. ＝±37.5°

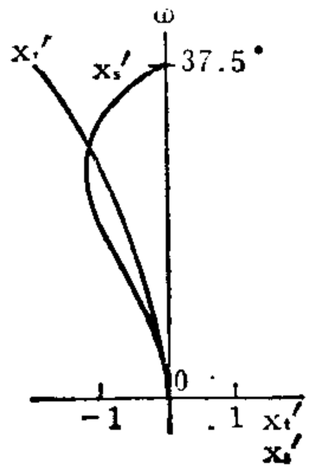


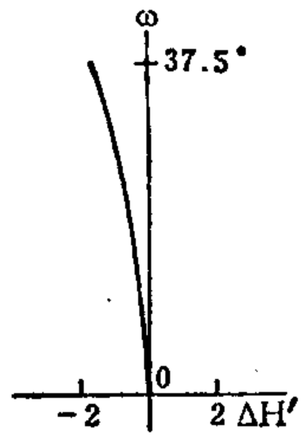
序号	r	d	n	ν	序号	r	d	n	ν
1	109.09	5.59	1.65830	57.3	8	－64.69	13.99	1.76182	26.5
2	59.44	17.48			9	177.62	3.15		
3	129.37	20.98	1.69680	55.6	10	－321.68	8.04	1.69680	55.6
4	－129.37	3.50	1.62041	60.3	11	－66.43	0.35		
5	64.69	38.46			12	－2797.20	9.09	1.71300	53.9
6	87.66	27.62	1.70154	41.1	13	－96.80			
7	－151.05	18.18*							

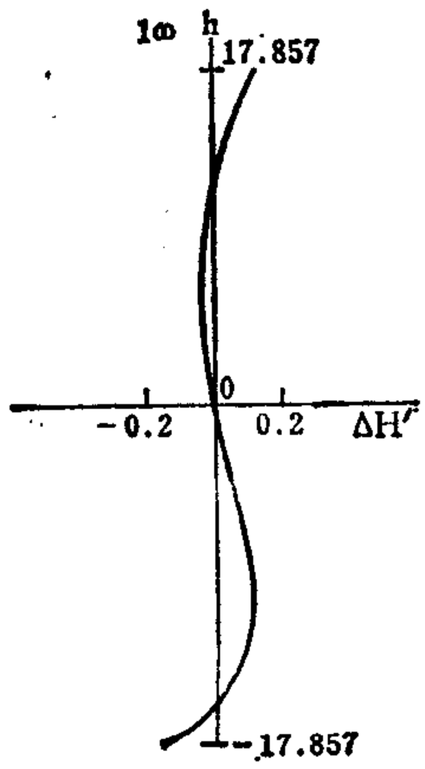
18.18* = 4.18 + 14.00

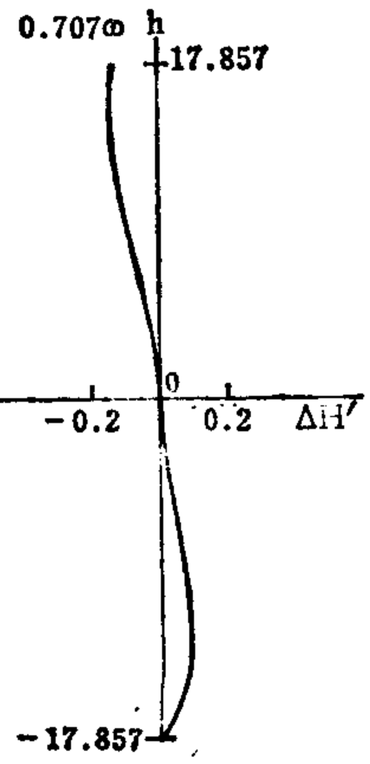
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	－0.14044	0.00158	0.02262	－0.21286	－0.74423	76.7	－2%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	－0.3042	－1.578	－1.961	－0.032	－1.929	－0.00680	0.05033
70	－0.7487	－0.832	－1.055	－1.198	0.143	－0.06587	－0.02677







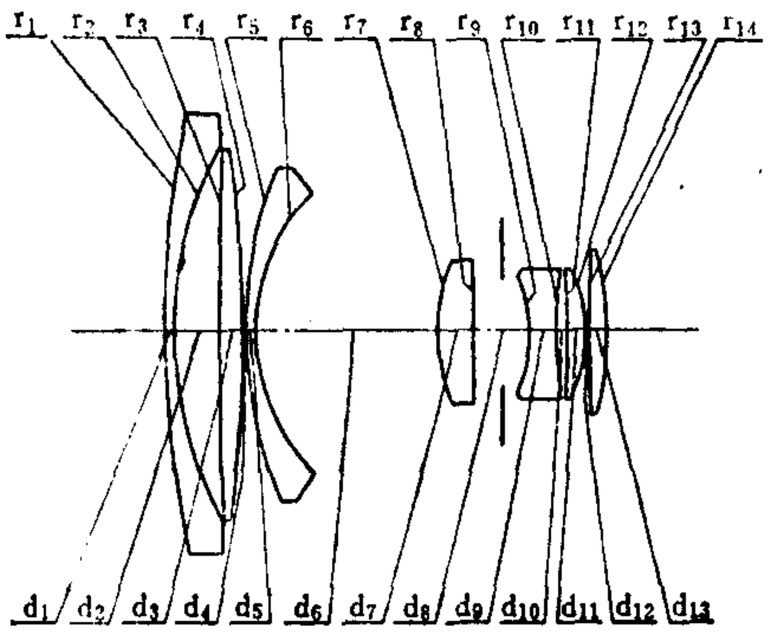




编号：06-02-085

反远距型照相广角物镜

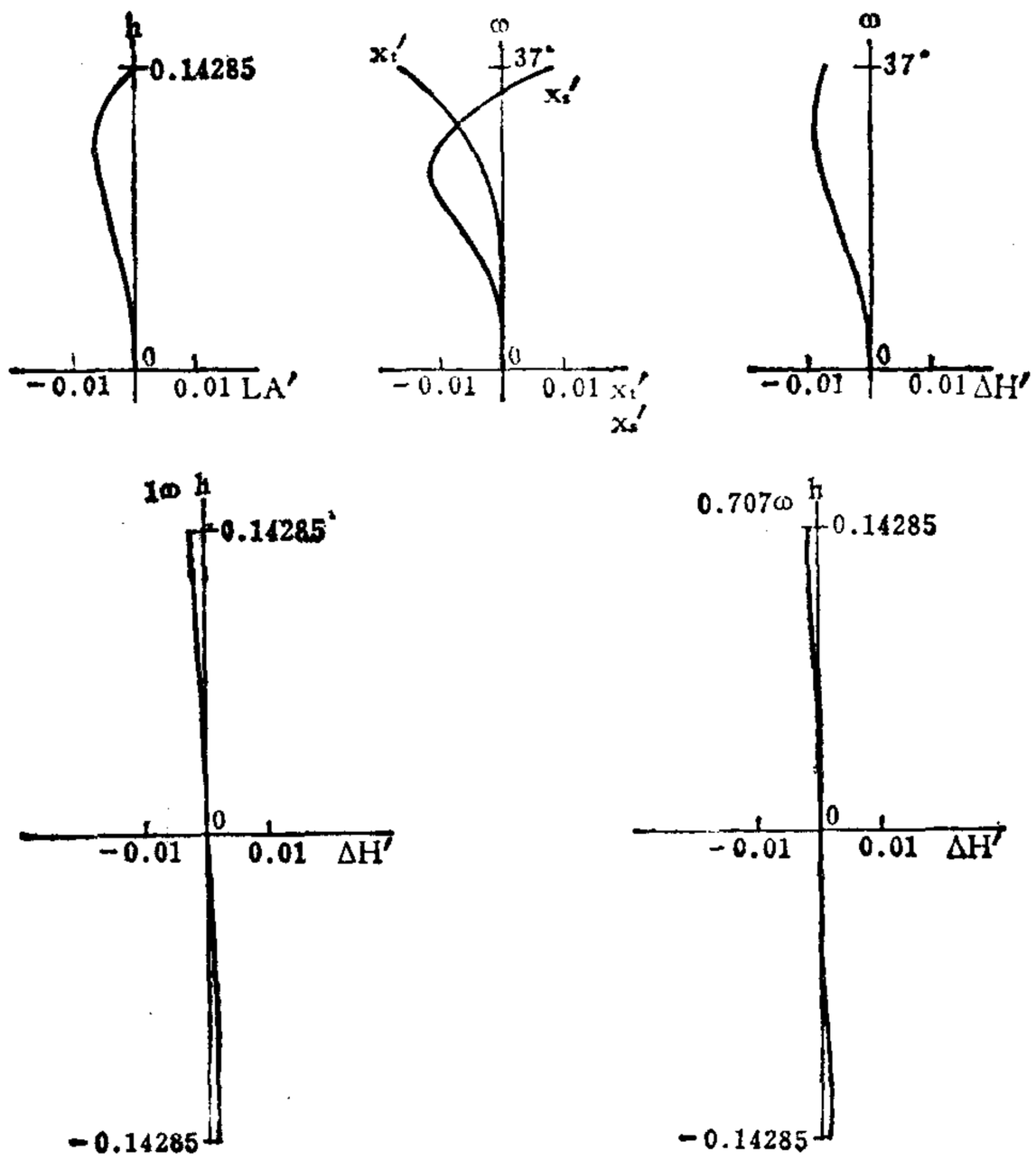
E. F. L＝1　　B. F. L＝1.30　　FNo. ＝3.5　　F. A. ＝±37°



序号	r	d	n	ν	序号	r	d	n	ν
1	3.7490	0.0370	1.6583	58.5	8	−20.6700	0.2050*		
2	1.5179	0.1629			9	−0.5106	0.0915	1.7174	29.4
3	22.5700	0.0850	1.7500	35.0	10	1.7443	0.0365		
4	−5.0390	0.0050			11	−2.9181	0.0734	1.6910	54.8
5	1.5852	0.0330	1.5891	61.2	12	−0.5087	0.0030		
6	0.7185	0.6641			13	38.5100	0.0640	1.6584	50.8
7	0.7027	0.1401	1.6689	45.0	14	−1.1197			

0.2050* = 0.1000 + 0.1050

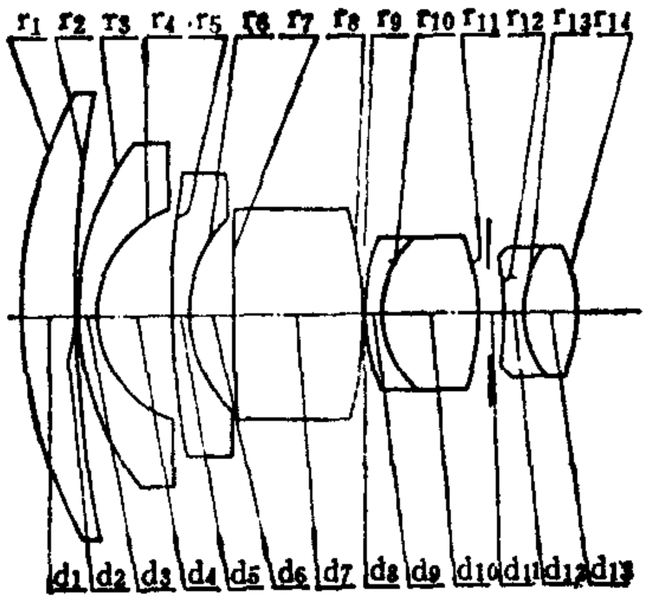
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.000838	0.000041	0.000378	−0.001674	−0.006065	0.75	−0.9%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t'-x_s'$	K'_{r1}	$K'_{r0.7}$
100	0.00009	−0.00704	−0.01709	0.00817	−0.02526	−0.000901	−0.000466
70	−0.00619	−0.00747	−0.00377	−0.01138	0.00761	−0.000136	−0.000307



编号：06-02-086

反远距型超广角照相物镜

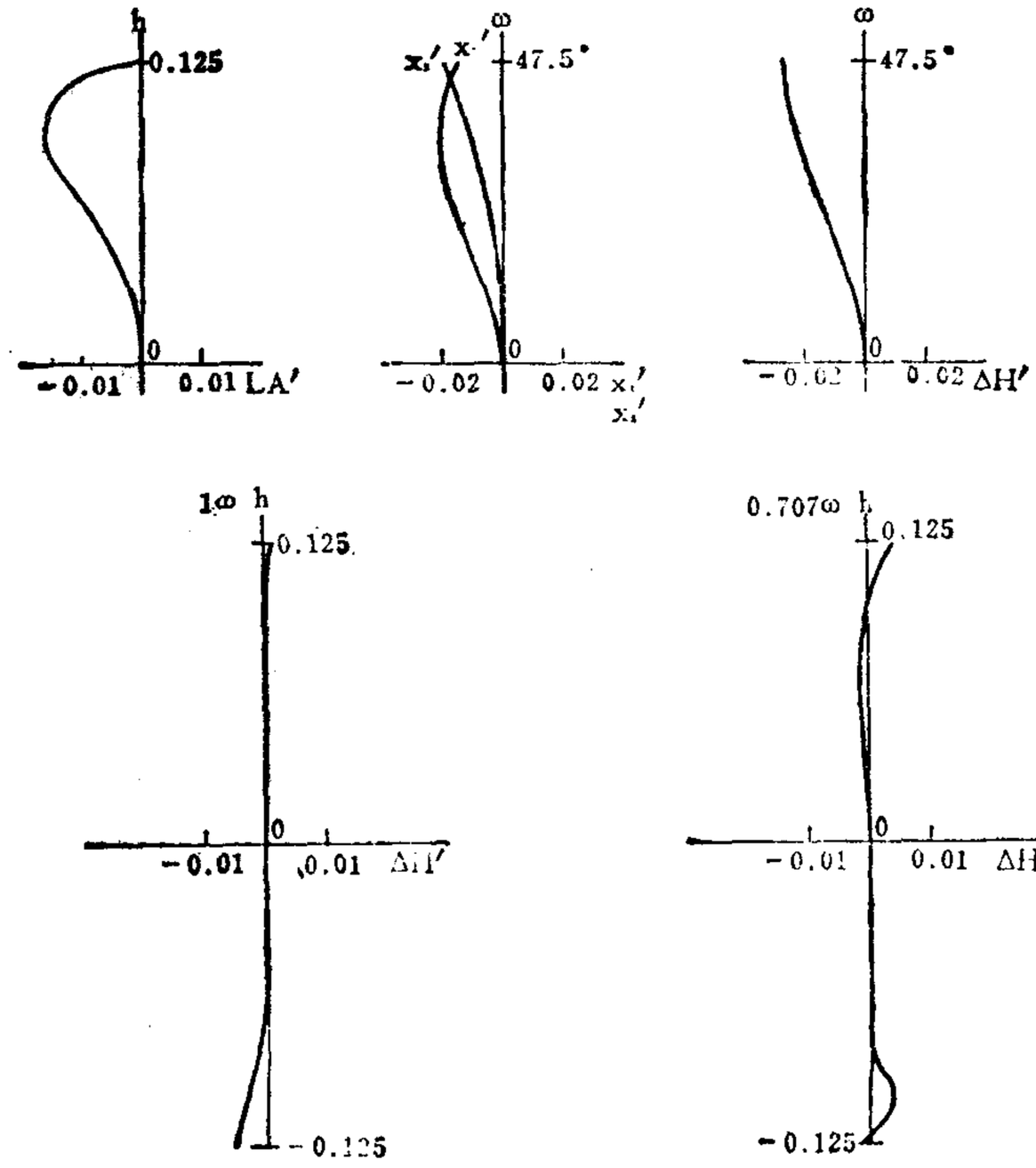
E. F. L = 1　　B. F. L = 1.8489　　FNo. = 4　　F. A. = ±47.5°



序号	r	d	n	v	序号	r	d	n	v
1	2.2700	0.2430	1.48749	69.8	8	− 1.7450	0.0050		
2	6.7800	0.0100			9	0.9297	0.0891	1.72342	37.9
3	1.2460	0.0842	1.69680	55.6	10	0.4535	0.4210	1.60342	38.0
4	0.4950	0.3270			11	− 1.0190	0.1090*		
5	3.5400	0.0743	1.69680	55.6	12	− 1.7240	0.0891	1.67270	32.1
6	0.5980	0.1980			13	0.4900	0.2330	1.46450	65.8
7	14.1600	0.5690	1.64000	60.2	14	− 0.7490			

0.1090* = 0.0400 + 0.0690

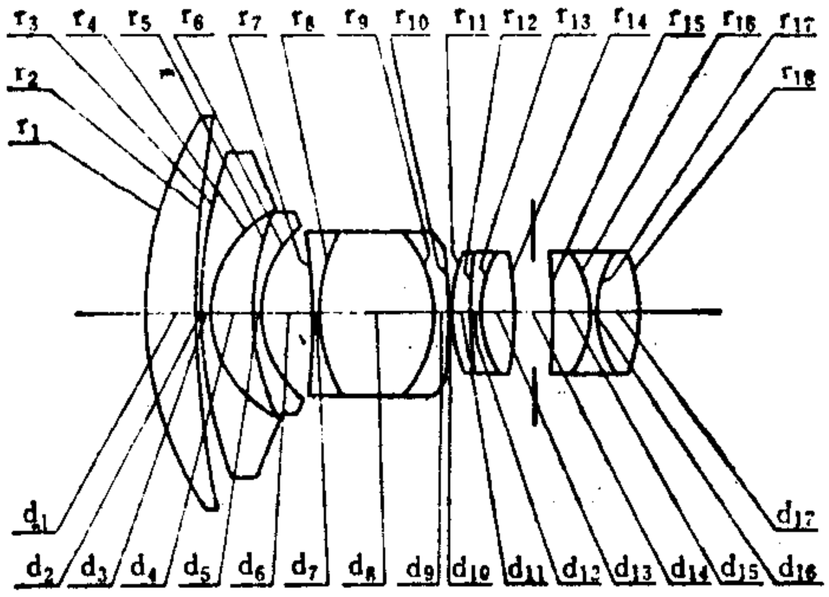
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.00131	0.00129	− 0.00153	− 0.00015	− 0.00828	1.1	− 2.4%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K'_{T1}	$K'_{T0.7}$
100	− 0.00190	− 0.0269	− 0.0135	− 0.0198	0.0063	− 0.00255	− 0.00153
70	− 0.01538	− 0.0197	− 0.0193	− 0.0102	− 0.0091	0.00129	− 0.00040



编号：06-02-087

超小型反远距广角物镜

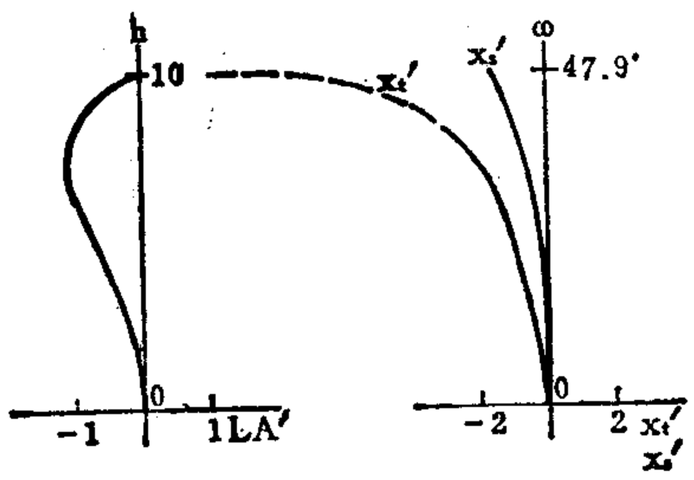
E. F. L＝100　　B. F. L＝189.3　　FNo. ＝ 5　　F. A. ＝ ±47.9°

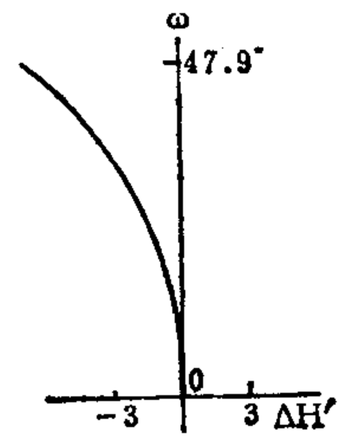


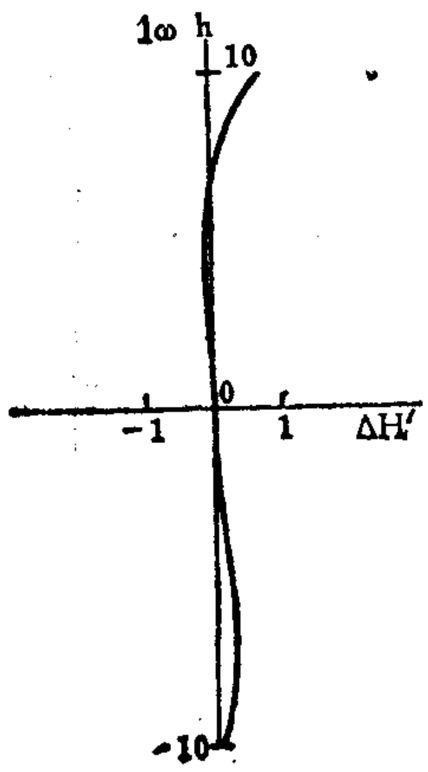
序号	r	d	n	ν	序号	r	d	n	ν
1	140.000	18.00	1.61720	54.0	10	− 193.474	0.50		
2	406.149	0.50			11	60.500	7.50	1.59270	35.4
3	180.000	3.50	1.64000	60.2	12	180.000	3.00	1.74077	27.7
4	41.772	15.50			13	44.000	12.50	1.51118	50.9
5	88.000	3.50	1.64000	60.2	14	− 119.362	14.00*		
6	41.814	18.00			15	− 195.000	13.00	1.60729	49.3
7	− 230.000	3.50	1.62041	60.3	16	− 43.500	3.00	1.72342	38.0
8	70.000	42.00	1.66446	35.9	17	42.000	15.50	1.58921	41.0
9	− 45.000	5.00	1.63980	34.6	18	− 58.393			

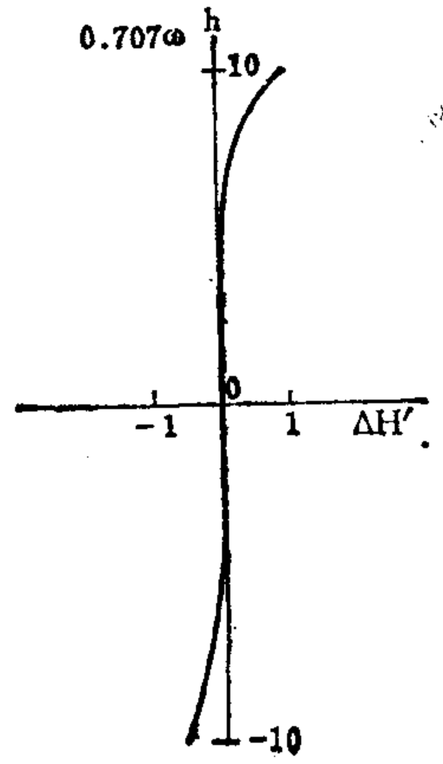
14.00* = 7.00 + 7.00

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.06314	− 0.02618	0.02968	− 0.00436	− 1.13688	110.6	− 6.2%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	− 0.039	− 6.906	− 10.122	− 1.531	− 8.591	0.3742	0.1284
70	− 1.043	− 2.938	− 1.807	− 0.578	− 1.229	0.2304	− 0.0178





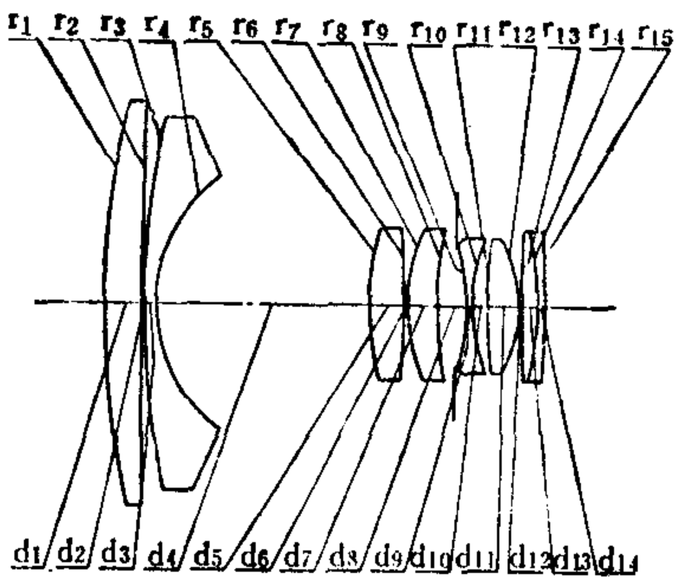




编号：06-02-088

长后截距广角照相物镜

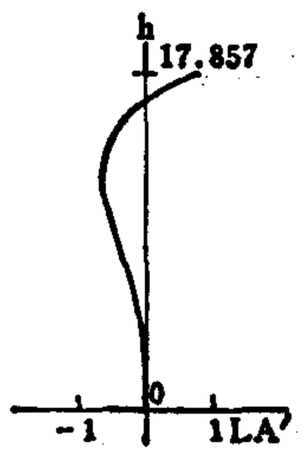
E. F. L＝100　　B. F. L＝125.4　　FNo. ＝2.8　　F. A. ＝±37.5°

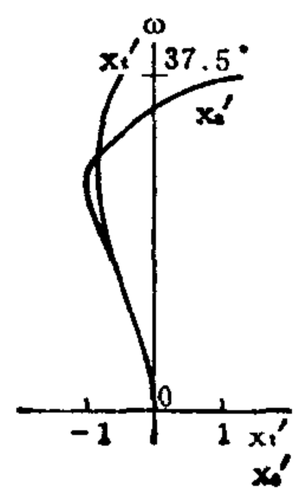


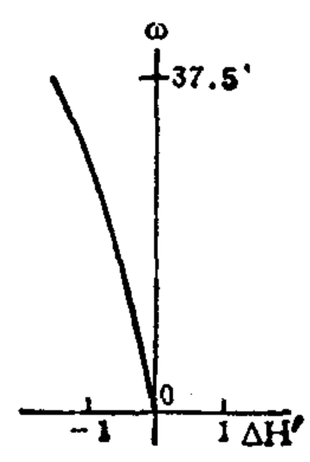
序号	r	d	n	v	序号	r	d	n	v
1	389.950	16.45	1.75690	31.7	9	−96.069	2.74	1.64769	33.9
2	4414.280	0.35			10	76.168	7.13		
3	386.030	5.09	1.64000	60.2	11	418.850	13.81	1.62041	60.3
4	68.482	94.21			12	−61.980	0.42		
5	123.390	15.23	1.65830	57.3	13	865.550	6.92	1.69680	55.6
6	−638.770	0.52			14	−138.270	3.12	1.56732	42.8
7	80.478	13.88	1.65830	57.3	15	−1312.440			
8	164.870	13.12*							

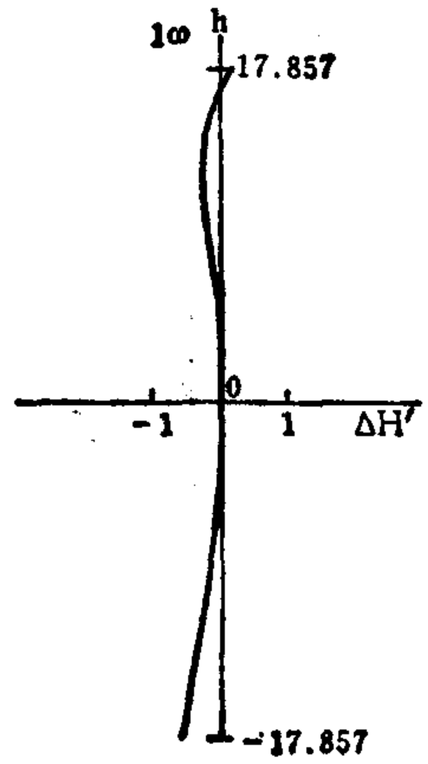
$13.12^{*} = 10.00 + 3.12$

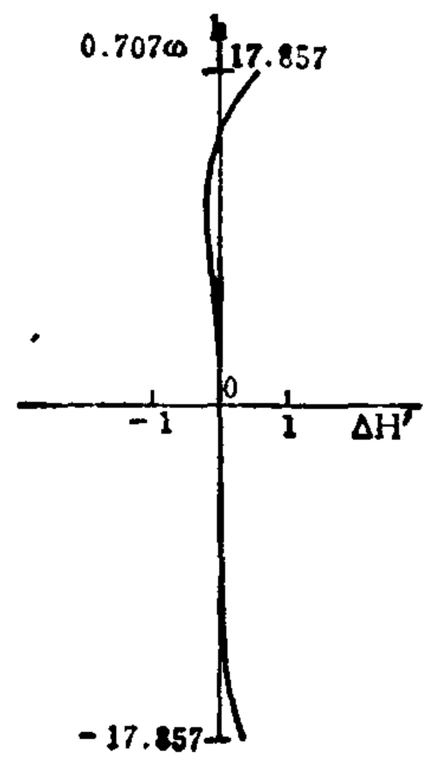
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.14271	0.00789	0.00749	−0.19196	−0.76130	76.7	−1.9%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K'_{T1}	$K'_{T0.7}$
100	0.692	−1.5088	−0.5228	1.3157	−1.8385	−0.2032	−0.2192
70	−0.641	−0.8778	−0.7795	−0.9553	0.1758	0.4369	−0.0124







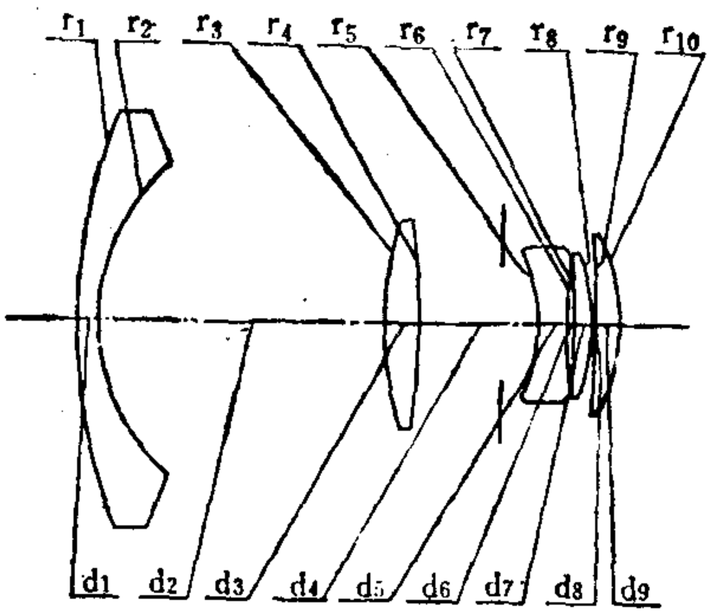




编号：06-02-089

反远距型照相广角物镜

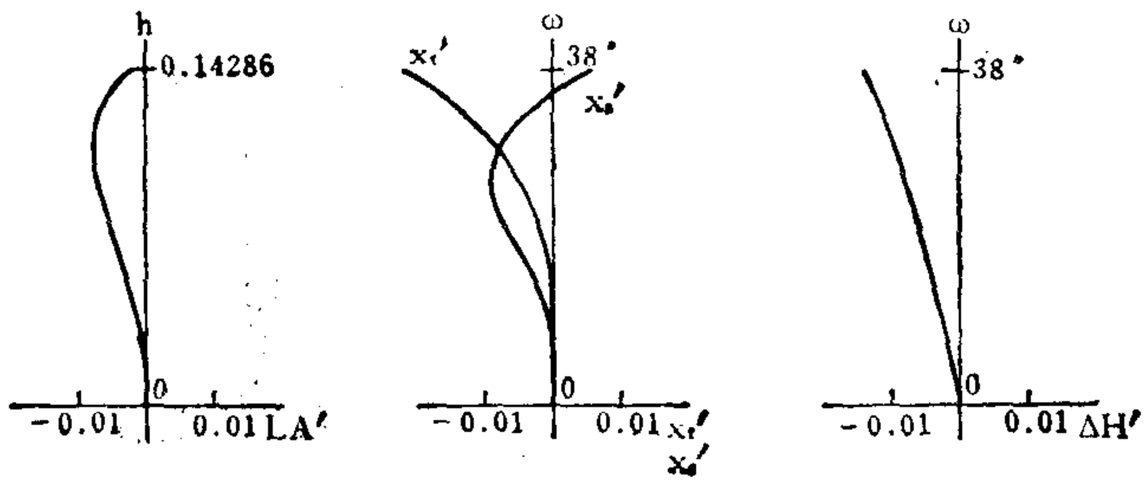
E. F. L = 1　　B. F. L = 1.30　　FNo. = 3.5　　F. A. = ±38°

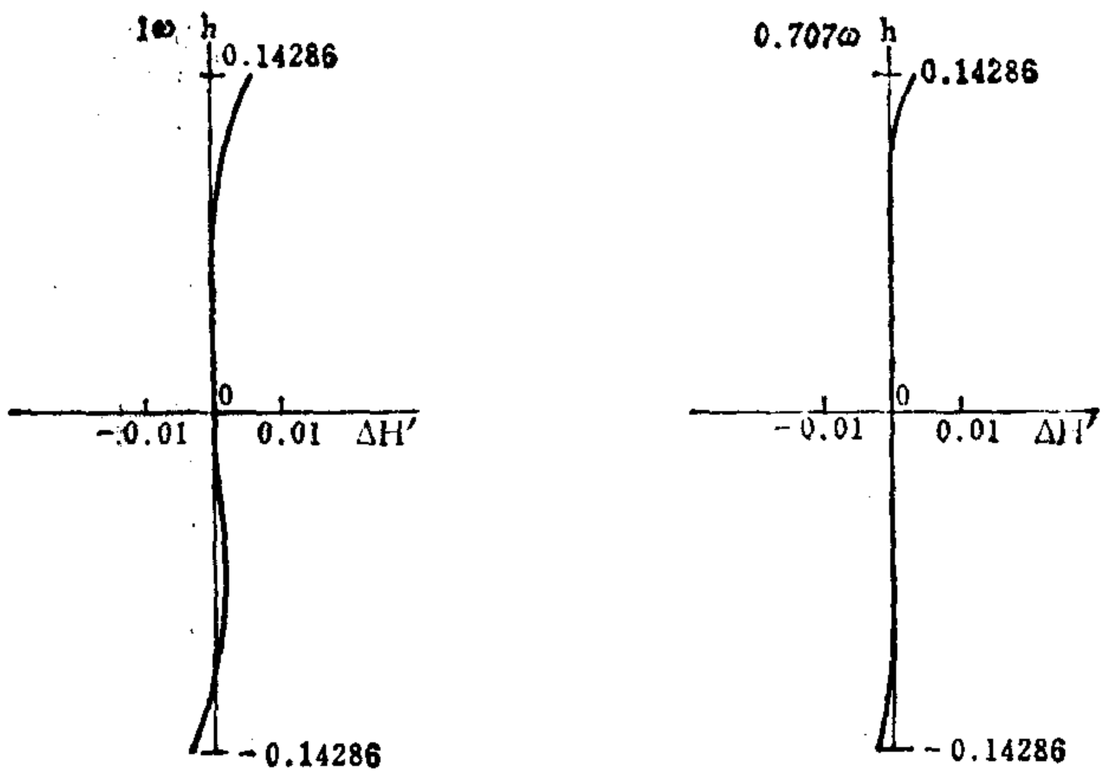


序号	r	d	n	ν	序号	r	d	n	ν
1	1.6541	0.0601	1.6230	58.1	6	2.0495	0.0200		
2	0.5994	0.8499			7	−2.6780	0.0620	1.7200	50.3
3	1.0544	0.0972	1.7200	50.3	8	−0.5924	0.0045		
4	−2.0539	0.3576*			9	−4.5025	0.0719	1.5160	56.8
5	−0.4779	0.0792	1.7006	30.1	10	−0.6005			

0.3576* = 0.2400 + 0.1176

	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	−0.000911	0.000066	0.000290	−0.001322	−0.006112	0.78	−1.8%
h 或 ω%	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	−0.00215	−0.01436	−0.02242	0.00591	−0.02833	0.000607	0.000247
70	−0.00719	−0.00835	−0.00547	−0.00893	0.00345	0.001192	0.000232

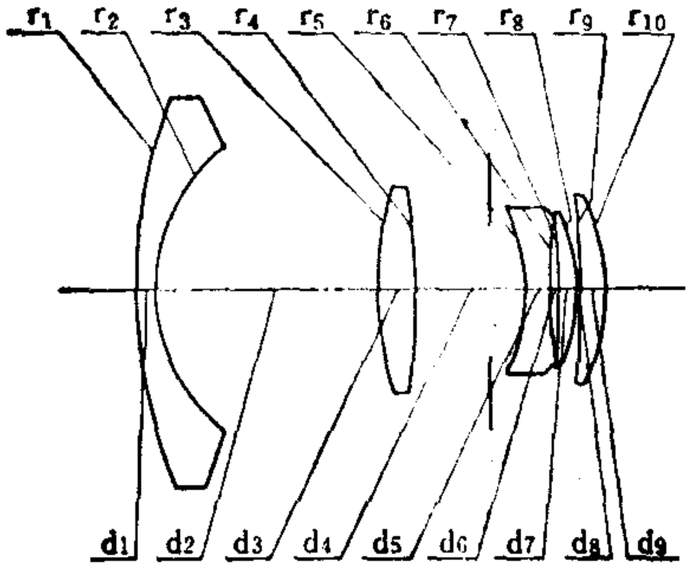




编号：06-02-090

反远距型照相广角物镜

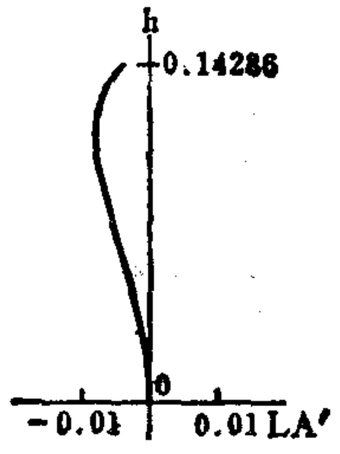
E. F. L = 1　　B. F: L = 1.30　　FNo. = 3.5　　F. A. = ±38°

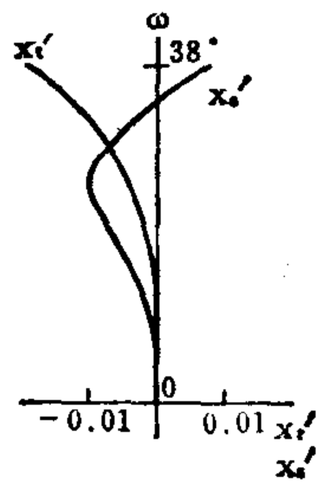


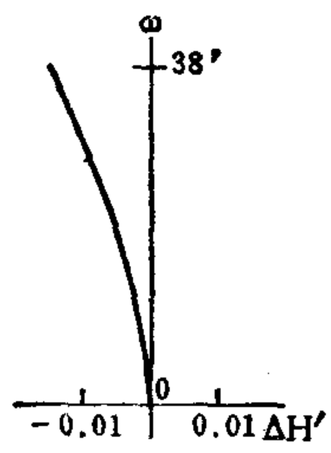
序号	r	d	n	ν	序号	r	d	n	ν
1	1.5732	0.0615	1.6172	54.0	6	2.0916	0.0200		
2	0.5347	0.6567			7	− 2.6149	0.0620	1.7200	50.3
3	1.0632	0.1080	1.7440	44.9	8	− 0.5537	0.0045		
4	− 1.9108	0.3274*			9	− 5.2820	0.0720	1.5258	52.1
5	− 0.5001	0.0762	1.7330	28.2	10	− 0.6361			

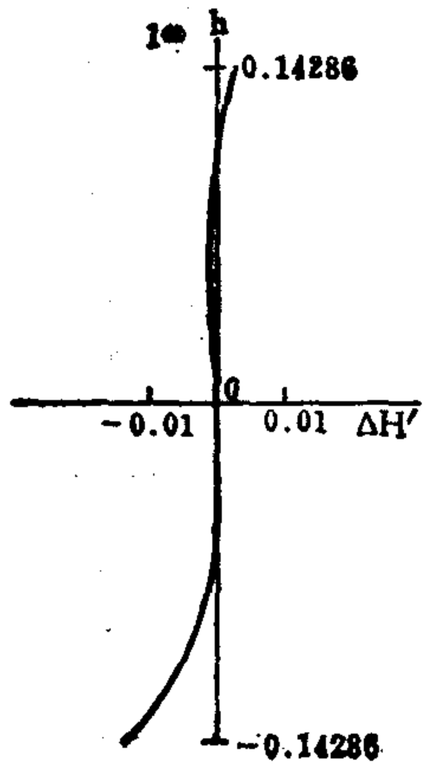
0.3274* = 0.2200 + 0.1074

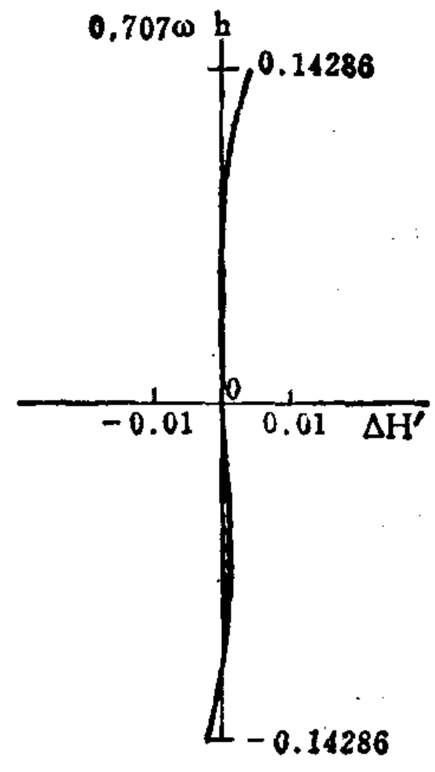
	ΣS_1	ΣS_2	ΣS_3	ΣS_4	ΣS_5	HI	QP(1ω)
	− 0.000911	0.000268	0.000274	− 0.001375	− 0.006257	0.78	− 1.8%
h 或 ω %	LA′	ΔH′	x_t'	x_s'	$x_t' - x_s'$	K_{T1}'	$K_{T0.7}'$
100	− 0.00368	− 0.01473	− 0.01910	0.00617	− 0.02727	− 0.005180	− 0.002174
70	− 0.00751	− 0.00857	− 0.00572	− 0.00932	0.00360	0.000483	− 0.000007







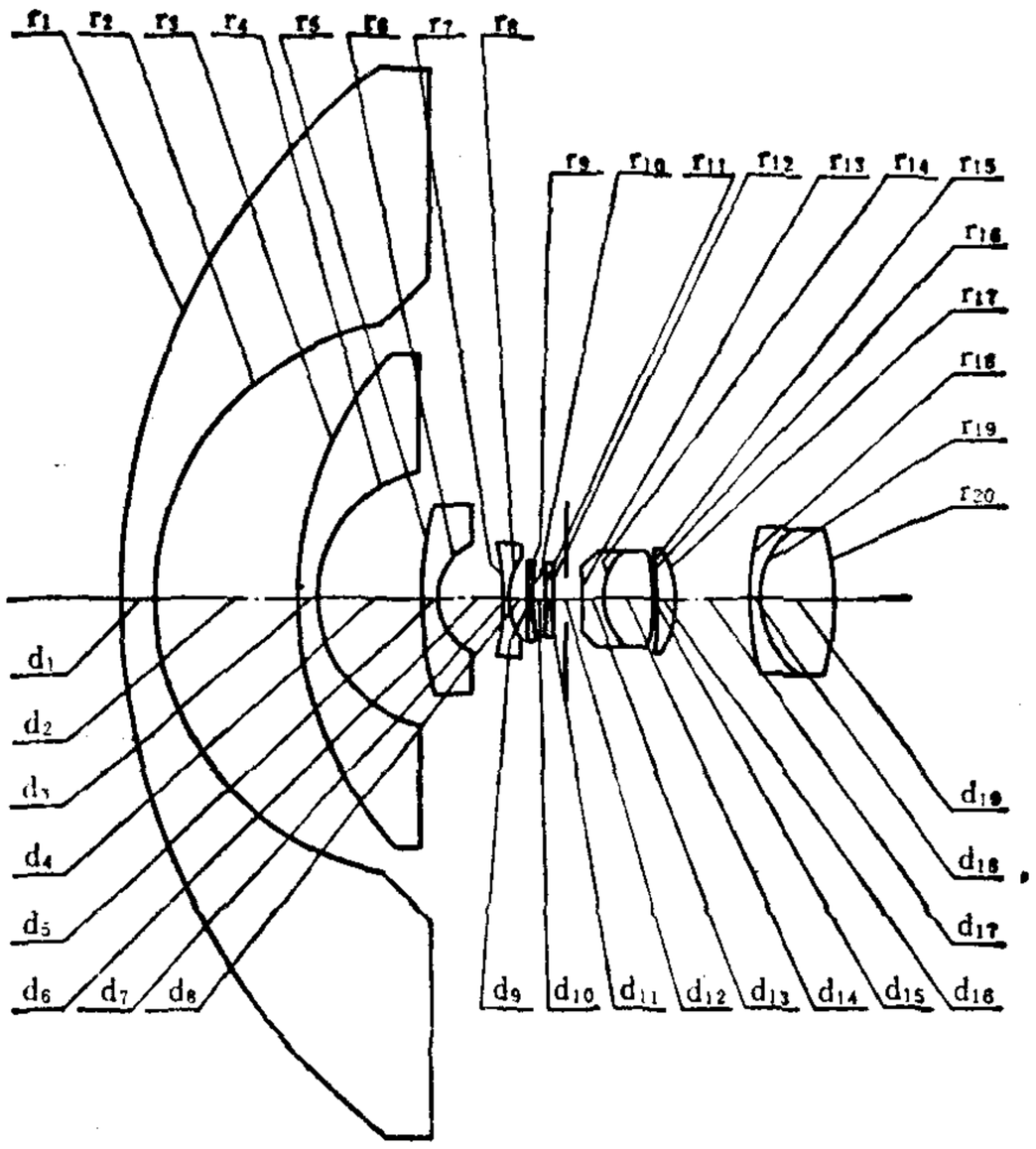




编号：06-02-091

消 色 差 超 广 角 物 镜

E. F. L＝10　　B. F. L＝22.859　　FNo. ＝5.6　　F. A. ＝±135°

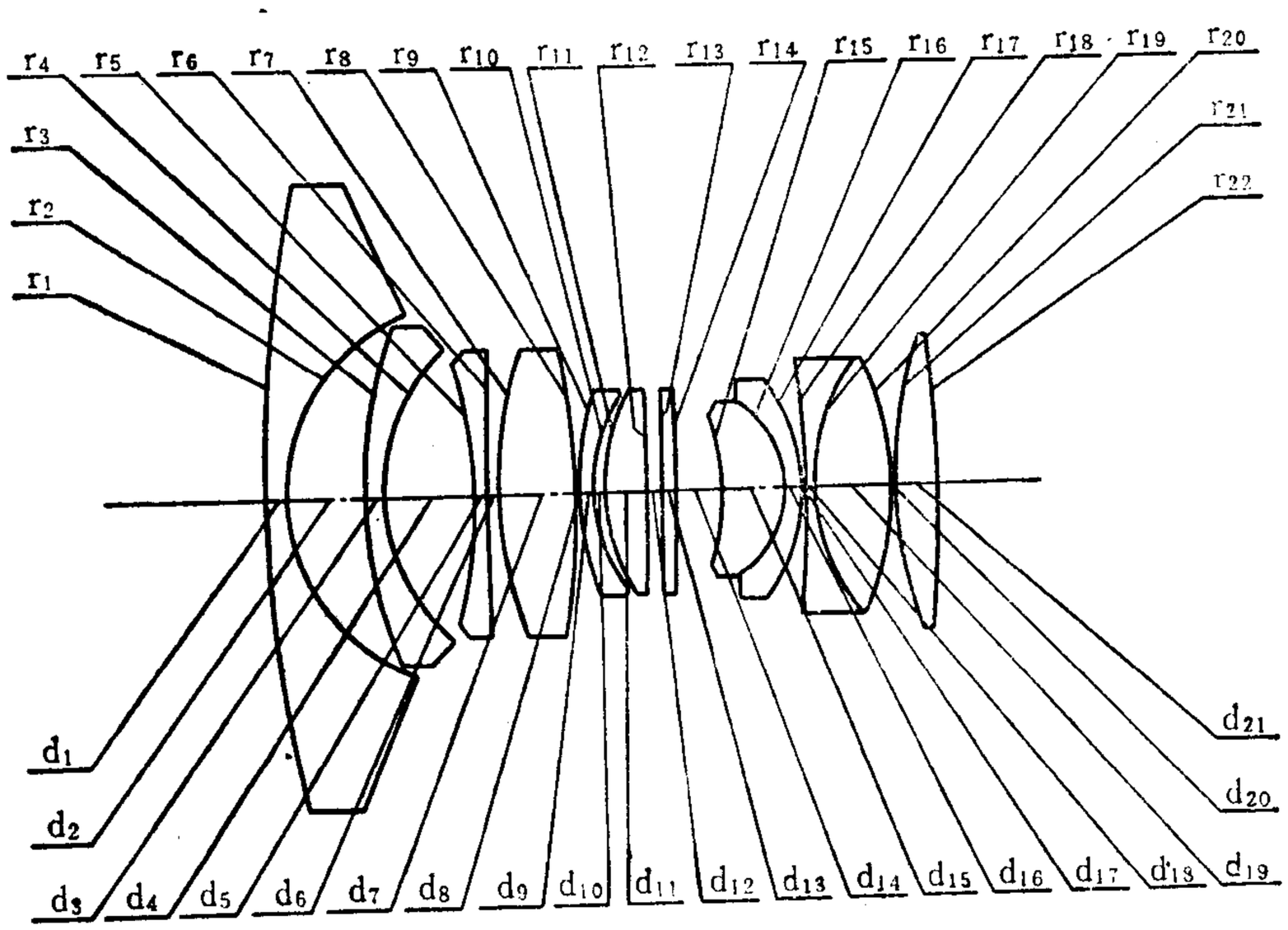


序　号	r	d	n_d	ν_d
1	204.583	10.2	1.51680	64.2
2	83.879	43.0		
3	112.709	5.7	1.61272	58.6
4	38.564	31.1		
5	113.858	4.9	1.62041	60.3
6	18.167	19.6		
7	−84.202	1.6	1.48848	70.3
8	21.757	5.7	1.78470	26.0
9	−409.165	1.6	1.76764	46.5
10	75.696	4.1		
11	∞	2.5	1.51743	58.5
12	∞	8.2		
13	−4091.653	7.2	1.78477	26.0
14	18.822	14.3	1.74443	49.4
15	−71.604	0.2		
16	−388.707	6.1	1.76764	46.5
17	−36.825	21.9		
18	81.833	3.3	1.78485	26.0
19	27.209	22.1	1.62041	60.3
20	−83.108			

编号：06-02-092

鱼眼式广角物镜

E.F.L＝1　　B.F.L＝2.26　　FNo.＝2.8　　F.A.＝±90°

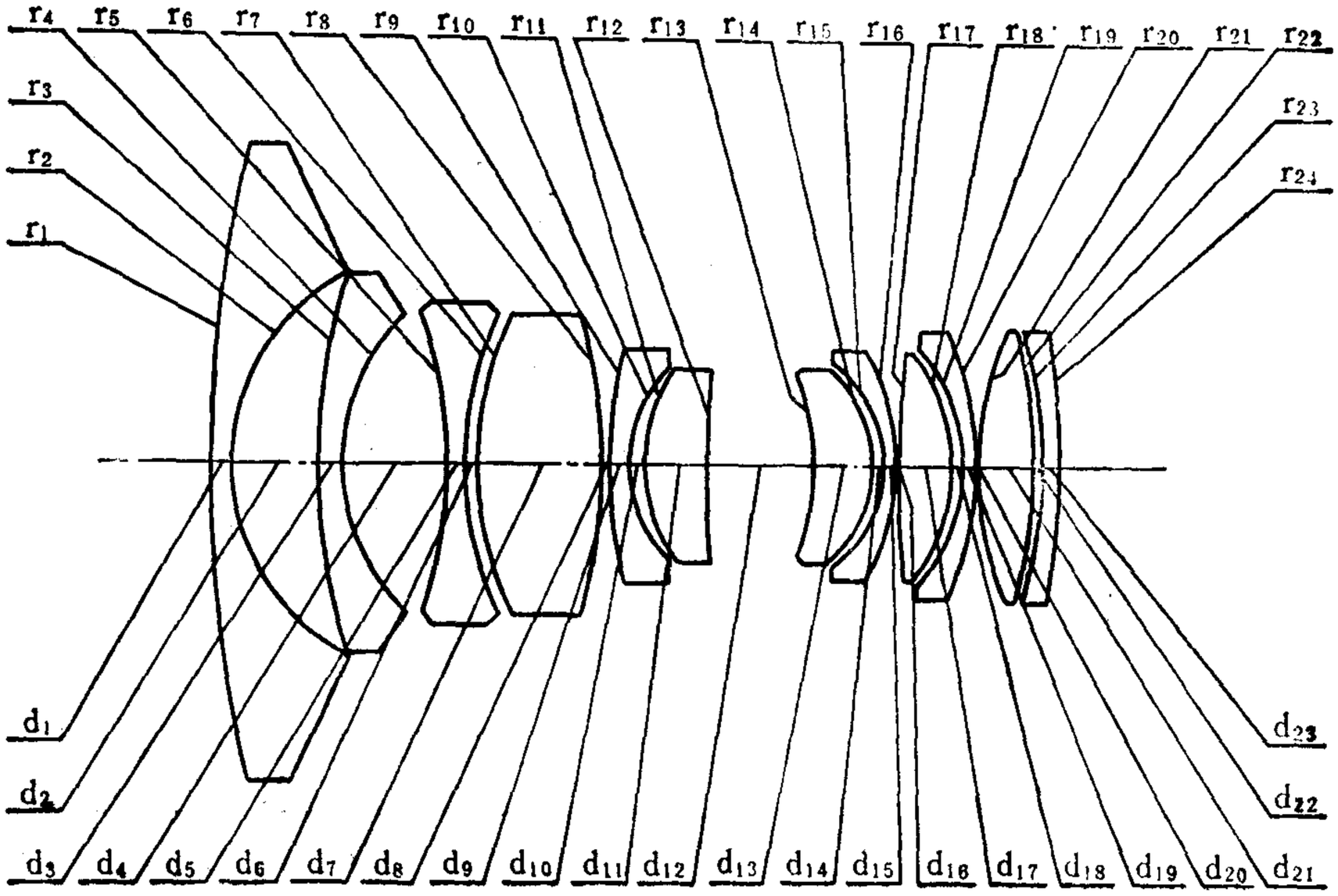


序　号	r	d	n	v
1	9.8493	0.1300	1.6010	64.1
2	1.3068	0.5307		
3	2.9757	0.1200	1.6700	57.1
4	1.3140	0.5913		
5	－3.1775	0.1000	1.6204	60.3
6	32.0620	0.0750		
7	3.1718	0.5131	1.6676	41.9
8	－5.3929	0.0090		
9	2.3056	0.1000	1.6214	61.2
10	1.1154	0.0750		
11	1.5001	0.2739	1.7545	32.8
12	－28.8850	0.1000		
13	∞	0.0915	1.5994	40.8
14	∞	0.3058		
15	－1.4966	0.4331	1.6388	60.1
16	－0.6905	0.1000	1.7618	26.5
17	－1.2414	0.0090		
18	－7.5358	0.0850	1.7400	37.5
19	1.4093	0.5100	1.6230	58.1
20	－2.0771	0.0090		
21	3.0419	0.2650	1.5168	64.2
22	－16.3930			

编号：06-02-093

鱼眼式广角物镜

E. F. L = 1　　B. F. L = 1.835　　FNo. = 1.8　　F. A. = ±90°



序　号	r	d	n	v	序　号	r	d	n	v
1	15.0015	0.2200	1.6010	64.1	13	− 2.5139	0.6000	1.6583	58.5
2	2.1546	0.8800			14	− 1.2981	0.0900		
3	6.2500	0.2200	1.6010	64.1	15	− 1.2351	0.1500	1.7618	26.5
4	2.0998	1.0300			16	− 2.4049	0.0150		
5	− 4.5846	0.2200	1.5168	64.2	17	10.2312	0.5200	1.6583	58.5
6	3.6091	0.1000			18	− 1.9616	0.0900		
7	3.6089	1.2375	1.7440	44.9	19	− 1.8416	0.1500	1.7618	26.5
8	− 5.5267	0.0800			20	− 3.4072	0.0150		
9	4.9665	0.2000	1.5176	53.5	21	3.5216	0.5300	1.6204	60.3
10	1.3638	0.1200			22	− 5.4145	0.0900		
11	1.7121	0.6201	1.7440	44.9	23	− 4.2675	0.1500	1.7618	26.5
12	12.9719	1.0476			24	− 8.3703			